STIC Search Report
EIC 3700

USPTO

STIC Database Tracking Number: 142088

TO: Chanda Harris **Location: RND 6a10** **Art Unit: 3714** **Wednesday, January 12, 2005** **Case Serial Number: 10/726530**	**From: Emory Damron** **Location: EIC 3700** **Randolph 8-A-34** **Phone: 571-272-3520** **Emory.Damron@uspto.gov**

Search Notes

Dear Chanda,

Please find below an inventor search in the bibliographic and full-text foreign patent files, as well as keyword searches in the patent and non-patent literature files, both bibliographic and full text.
References of potential pertinence have been tagged, but please review all the packets in case you like something I didn't.
Of those references which have been tagged, please note any manual highlighting which I've done within the document.
In addition to searching on Dialog, I also searched EPO/JPO/Derwent, Scirus/ScienceDirect, and Google Scholar.
There are a few decent references contained herein, but I'll let you determine how useful they may be to you.
Please contact me if I can refocus or expand any aspect of this case, and please take a moment to provide any feedback (on the form provided) so EIC 3700 may better serve your needs. Good Luck!
Sincerely,

Emory Damron
Technical Information Specialist
EIC 3700, US Patent & Trademark Office
Phone: (571) 272-3520/ Fax: (571) 273-0047
Emory.damron@uspto.gov

Search and Information Resources Administration

STIC Search Results Feedback Form

EIC 3700

Questions about the scope or the results of the search? Contact ***the EIC searcher or contact:***

John Sims, EIC 3700 Team Leader
571-272-3507 RND 8 B35

Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* 3714 *Example: 3730*
- *Relevant prior art **found**, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

  Types of relevant prior art found:
  - ☐ Foreign Patent(s)
  - ☐ Non-Patent Literature
    (journal articles, conference proceedings, new product announcements etc.)
- *Relevant prior art **not found:***
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/EIC3700 CP2 2C08

```
Set     Items   Description
S1     135479   IR OR INFRARED
S2     941624   MEMORY OR RECALL OR LEARN? OR MENTAL? OR COGNITIV?
S3    1049394   EDUCAT? OR INSTRUCT? OR TEACH? OR DRILL? OR MOVEMENT?
S4     771996   ACTION? OR BEHAVIOR? OR BEHAVIOUR? OR MOTION? OR PERAMBULA-
             T?
S5    2429097   MEASUR? OR TEST? OR EXPERIMENT? OR GAUG? OR RATE? OR RATIN-
             G?
S6     739554   ASSESS? OR CALCULAT? OR OBSERV? OR WATCH? OR STUDY?
S7    2752783   DETECT? OR SENSE? OR SENSING? OR SENSOR? OR SENSER? OR MON-
             ITOR?
S8     143636   ANIMAL OR ANIMALS
S9      66969   MOUSE OR MICE OR RAT OR RATS
S10     31821   LABRAT OR MAMMAL OR MAMMALS
S11         3   (NIGHT OR NOCTURNAL?)(3N)(CREATUR? OR BEAST?)
S12   1171796   S2:S11(5N)(METHOD? OR MODE? OR SYSTEM? OR PROCESS? OR PROC-
             EDUR? OR TECHNIQU?)
S13   1380670   FOOD? OR FEED? OR MEAL? OR NUTRIENT? OR INGEST?
S14   2020622   APPETIT? OR DRINK? OR WATER? OR ALIMENT? OR NOURISHMENT?
S15   1247044   CPU OR COMPUTER? OR MICROCOMPUTER?
S16    907246   CONTROLLER? OR DATA()PROCESS? OR PROCESS?()UNIT? OR CENTRA-
             L()PROCESS?
S17   1404098   HOLDER? OR BIN OR BINS OR CONTAINER? OR NOZZLE? OR HOPPER?
             OR RECEPTACL?
S18   3284630   COVER? OR SHIELD? OR LID OR LIDS OR CAP OR CAPS OR TOP OR -
             TOPS OR DOOR? OR OPENING? OR CLOSURE?
S19   3071164   POSITION? OR SITUATION? OR LOCATION? OR ORIENTATION?
S20   1896765   IC=(G06F? OR G01N? OR G01K? OR G09B? OR A01K? OR G01V?)
S21     66494   (S1 AND S2:S11) OR (S1 AND S12)
S22      2052   S21 AND S8:S11
S23       395   S22 AND S15:S16
S24       254   S23 AND S20
S25       395   S23:S24
S26       126   S25 AND S2:S4
S27        36   S25 AND S13:S14
S28       149   S26:S27
S29        78   S28 AND S17:S19
S30       149   S28:S29
S31       149   IDPAT (sorted in duplicate/non-duplicate order)
? show files
File 350:Derwent WPIX 1963-2005/UD,UM &UP=200502
         (c) 2005  Thomson Derwent
File 347:JAPIO Nov 1976-2004/Aug(Updated 041203)
         (c) 2004 JPO & JAPIO
?
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Set     Items   Description
S1     135479   IR OR INFRARED
S2     941624   MEMORY OR RECALL OR LEARN? OR MENTAL? OR COGNITIV?
S3    1049394   EDUCAT? OR INSTRUCT? OR TEACH? OR DRILL? OR MOVEMENT?
S4     771996   ACTION? OR BEHAVIOR? OR BEHAVIOUR? OR MOTION? OR PERAMBULA-
            T?
S5    2429097   MEASUR? OR TEST? OR EXPERIMENT? OR GAUG? OR RATE? OR RATIN-
            G?
S6     739554   ASSESS? OR CALCULAT? OR OBSERV? OR WATCH? OR STUDY?
S7    2752783   DETECT? OR SENSE? OR SENSING? OR SENSOR? OR SENSER? OR MON-
            ITOR?
S8     143636   ANIMAL OR ANIMALS
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S10     31821   LABRAT OR MAMMAL OR MAMMALS
S11         3   (NIGHT OR NOCTURNAL?)(3N)(CREATUR? OR BEAST?)
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            EDUR? OR TECHNIQU?)
S13   1380670   FOOD? OR FEED? OR MEAL? OR NUTRIENT? OR INGEST?
S14   2020622   APPETIT? OR DRINK? OR WATER? OR ALIMENT? OR NOURISHMENT?
S15   1247044   CPU OR COMPUTER? OR MICROCOMPUTER?
S16    907246   CONTROLLER? OR DATA()PROCESS? OR PROCESS?()UNIT? OR CENTRA-
            L()PROCESS?
S17   1404098   HOLDER? OR BIN OR BINS OR CONTAINER? OR NOZZLE? OR HOPPER?
            OR RECEPTACL?
S18   3284630   COVER? OR SHIELD? OR LID OR LIDS OR CAP OR CAPS OR TOP OR -
            TOPS OR DOOR? OR OPENING? OR CLOSURE?
S19   3071164   POSITION? OR SITUATION? OR LOCATION? OR ORIENTATION?
S20   1896765   IC=(G06F? OR G01N? OR G01K? OR G09B? OR A01K? OR G01V?)
S21     66494   (S1 AND S2:S11) OR (S1 AND S12)
S22      2052   S21 AND S8:S11
S23       395   S22 AND S15:S16
S24       254   S23 AND S20
S25       395   S23:S24
S26       126   S25 AND S2:S4
S27        36   S25 AND S13:S14
S28       149   S26:S27
S29        78   S28 AND S17:S19
S30       149   S28:S29
S31       149   IDPAT (sorted in duplicate/non-duplicate order)
S32       125   S25 NOT MOUSE?
S33        57   S32 NOT S30
S34        57   IDPAT (sorted in duplicate/non-duplicate order)
?
```

THE APPLICATION

31/3,K/15 (Item 15 from file: 350)
DIALOG(R)File 350:Derwent WPIX

016444546 **Image available**
WPI Acc No: 2004-602462/200458
Related WPI Acc No: 2003-266074
XRPX Acc No: N04-476429

Small animal **e.g.** mice , memory **and** learning **capability** measuring method , **involves finding number of accessing times of** animal **to respective through holes on field enclosed by** covers **placed between field and** feeder , **by** computer

Patent Assignee: KUROKAWA M (KURO-I)
Inventor: KUROKAWA M
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20040142313	A1	20040722	US 200275247	A	20020215	200458 B
			US 2003726530	A	20031204	

Priority Applications (No Type Date): JP 2001154668 A 20010523
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20040142313	A1		14	G09B-019/00	Div ex application US 200275247

Small animal **e.g.** mice , memory **and** learning **capability** measuring method , involves finding number of accessing times of animal **to respective through holes on field enclosed by** covers **placed between field and** feeder , **by** computer

Abstract (Basic):

... The **method** involves **measuring position** of a small **animal** in an **observation** field by an **infrared** ray **detector** in a preset order each for a unit period, while a **computer** (200) controls **opening** of set of **covers** between the field and a rotary **feeder** storing **feed** . The number of accessing times of the **animal** to respective through holes formed on the field enclosed by the **covers** , is got by the **computer** based on the **detector** output.

... Used for **measuring** a **memory** and **learning** capability of a small **animal** (claimed) e.g. **rat** , and hippocampus damaged **mice** .

...

...The **computer** controls the supply of **feed** to the small **animal** , thereby avoiding **experimenter** `s contact to the small **animal** and hence reduces stress on the small **animal** to prevent dispersion (variations) in **experiment** results, depending on **experimenters** .

...

...The drawing shows a schematic construction illustrating a **measuring system** .

...

... **Water** supply unit (60...

...Rotary **feeder** (70...

... **Observation** unit (80...

... **Computer** (200

Title Terms: **ANIMAL** ;
International Patent Class (Main): **G09B-019/00**

31/3,K/16 (Item 16 from file: 350)
DIALOG(R)File 350:Derwent WPIX

016433979 **Image available**
WPI Acc No: 2004-591896/200457
Related WPI Acc No: 2002-527671; 2004-552523
XRAM Acc No: C04-215182
XRPX Acc No: N04-468109

Video-based animal behavior **analysis** system **for, e.g.** mouse **or** rat , **includes** computer **to determine** position **and shape of** animal **from video images and characterize activity of** animal **based on analysis of changes**

Patent Assignee: BAI X (BAIX-I); KOBLA V (KOBL-I); LIANG Y (LIAN-I); ZHANG Y (ZHAN-I)
Inventor: BAI X; KOBLA V; LIANG Y; ZHANG Y
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 20040141635	A1	20040722	US 2000718374	A	20001124	200457	B
			US 2003698008	A	20031030		

Priority Applications (No Type Date): US 2003698008 A 20031030; US 2000718374 A 20001124
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20040141635	A1		23	G06K-009/00	CIP of application US 2000718374 CIP of patent US 6678413

Video-based animal behavior **analysis** system **for, e.g.** mouse **or** rat , **includes** computer **to determine** position **and shape of** animal **from video images and characterize activity of** animal **based on analysis of changes**

Abstract (Basic):
... A video-based **animal behavior** analysis **system** comprises a **computer** configured to determine a **position** and shape of an **animal** from video images and characterize activity of the **animal** based on analysis of changes in the **position** and the shape over time.
... An INDEPENDENT CLAIM is also included for method of determining and characterizing activity of an **animal** using **computer processing** of video images, comprising **detecting** an **animal** in the video images; tracking changes to the **animal** over a plurality of the video images; identifying and classifying the changes to the **animal** ; and characterizing the activity of the **animal** based on comparison to pre-trained models or rules of such activity or based on **calculation** of **behavioral** parameters of **behavioral processes** and **behavioral** events...

...The invention is used for determining and characterizing activity of an **animal** , e.g. **mouse** or **rat** (claimed...

...The invention is capable of automating the **measurements** of the **experiments** , provides the **measurements** of meaningful complex **behaviors** , reveals new parameters that characterize **animal behaviors** to meet post-genomic era's demands, and obtains consistent results...
Technology Focus:
... INSTRUMENTATION AND **TESTING** - ...

...The system further comprises a video camera and a video digitization unit coupled to the **computer** for capturing the video images and converting the video images from analog to digital format. The **system** further comprises an **animal** identification, segregation, and tracking module receiving the video images. The **computer** further includes a **behavior** identification module for characterizing activity of the **animal** , the **behavior** identification module being coupled to the **animal** identification, segregation, and tracking module. The **computer** further includes a standard **animal** **behavior** storage module that stores information about known **behavior** of a predetermined standard **animal** for comparing the activity of the **animal** , the standard **animal** **behavior** storage module being coupled to the **behavior** identification module...

...Preferred **Method** : **Detecting** an **animal** includes using a background subtraction **method** comprising apply a adaptive or constant threshold on the difference values between a current image...

...of interest; post-process the various pixels in the region of interest to obtain the **animal** using various morphological and area refinement **techniques** ; and refine contours of the **animal** image by smoothing. Identifying and classifying changes to the **animal** includes using statistical shape information selected from the group consisting of area of the **animal** ; centroid **position** of the **animal** ; bounding box and its aspect ratio of the **animal** ; eccentricity of the **animal** ; and a directional **orientation** of the **animal** relative to an axis as generated with a principal component analysis. The steps are also...

...in night conditions by using red light to simulate such night conditions, or by using **infrared** cameras to capture the images with no light; with cages or arenas, each of which contains a single **animal** . Locating feature points and segments of the **animal** includes the **detecting** body parts of the **animal** , such as head, tail, waist, fore body, or hind body.

...Title Terms: **ANIMAL** ;

31/3,K/85 (Item 85 from file: 350)
DIALOG(R)File 350:Derwent WPIX

012787637 **Image available**
WPI Acc No: 1999-593864/199951
XRAM Acc No: C99-173612
XRPX Acc No: N99-438189
Chemical reaction state evaluation of experimental animal **such as sea-horse - involves evaluating shrinking state and reaction of** experimental animal **based on** movement **of** animal detected **by far** infrared sensor
Patent Assignee: ZH ZANRYU NOYAKU KENKYUSHO (ZANR-N); ZANRYU NOYAKU KENKYUJO ZH (ZANR-N)
Number of Countries: 001 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 2969108	B1	19991102	JP 98220875	A	19980804	199951	B
JP 2000055906	A	20000225	JP 98220875	A	19980804	200021	

Priority Applications (No Type Date): JP 98220875 A 19980804
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2969108	B1		11	G01N-033/15	
JP 2000055906	A		12	G01N-033/15	

Chemical reaction state evaluation of experimental animal **such as sea-horse...**

...**involves evaluating shrinking state and reaction of** experimental animal **based on** movement **of** animal detected **by far** infrared sensor

...Abstract (Basic): NOVELTY - Electric shock is given to **experimental animal** , and conditioning stimulus and sound stimulus are **learnt** accordingly. Based on **movement** of **animal detected** by far **infrared sensors** (12a-12d), the shrinking state and reaction of **animal** is evaluated by presenting the conditioning stimulus. DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included...

...USE - For evaluating reaction state of **experimental animal** such as sea-horse to chemicals such as agrochemical or drug...

...ADVANTAGE - Improves visual **observation** accuracy, hence chemical reaction can be **detected** easily. DESCRIPTION OF DRAWING(S) - The figure shows model diagram of reaction state evaluation apparatus. Rectangular **container** (10); Buzzer (11); **Infrared** ray **sensors** (12a-12d); Speaker (13); White-noise generator (14); Illumination lamp (15); Mesh-like cylinder **container** ; Buzzer (21); **Infrared** ray **sensors** (22a-22d); Illumination lamp (23); Acryl board (25); Control apparatus (30); Personal **computer** (35...
...Title Terms: **EXPERIMENT** ;
International Patent Class (Main): **G01N-033/15**

31/3,K/101 (Item 101 from file: 350)
DIALOG(R)File 350:Derwent WPIX

011063741
WPI Acc No: 1997-041666/199704
XRPX Acc No: N97-034652
Compound animal behaviour detection **and analysis** system **and** method **- by tracking** animal **body** movement **with** IR **and ultrasonic** sensing system
Patent Assignee: LII L (LIIL-I); YANG M (YANG-I); LI Y (LIYY-I); YOUNG M (YOUN-I)
Inventor: LIILAN-JYE ; YANG M; LI Y; YOUNG M
Number of Countries: 002 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
TW 285728	A	19960911	TW 95104005	A	19950424	199704	B
US 5915332	A	19990629	US 96709758	A	19960909	199932	N

Priority Applications (No Type Date): TW 95104005 A 19950424; US 96709758 A 19960909
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
TW 285728	A			G06F-015/42	
US 5915332	A			A01K-029/00	

Compound animal behaviour detection **and analysis** system **and** method **- ...**

...by tracking animal **body** movement **with** IR **and ultrasonic** sensing system

...Abstract (Basic): The system includes a **container** for supplying proper space for **detected animal** activity, which could be box or room. An **IR** array **detection** subsystem installs multiple **IR** emitters and receivers around **container** , which features that the **IR** array **detection** subsystem controls **IR** emitter and receiver by single chip **microcomputer** in order to **calculate animal** body central **position** coordinate on horizontal direction. An ultrasonic phase shift **detection** subsystem installs multiple ultrasonic emitters and receivers on **container top** . A single chip **microcomputer** controls ultrasonic emitter and receiver in order to **calculate animal** body central **position** coordinate on vertical direction.
...Title Terms: **ANIMAL** ;
International Patent Class (Main): **A01K-029/00** ...

... **G06F-015/42**

31/3,K/123 (Item 123 from file: 350)
DIALOG(R)File 350:Derwent WPIX

007016175
WPI Acc No: 1987-016172/198703
XRPX Acc No: N87-012062
Water **-closet for pet dogs and cats - has automatic electronic control of reopening and** closure **of** doorway **shutter prior to cleansing of interior**
Patent Assignee: LOCTIN A (LOCT-I)
Inventor: LOCTIN A
Number of Countries: 012 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 209474	A	19870121	EP 86420177	A	19860704	198703	B
FR 2584568	A	19870116				198708	
US 4729342	A	19880308	US 86885086	A	19860714	198813	

Priority Applications (No Type Date): FR 8511262 A 19850712
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 209474	A	F	16		
Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE					
US 4729342	A		9		

Water **-closet for pet dogs and cats...**

...has automatic electronic control of reopening and closure **of** doorway **shutter prior to cleansing of interior**

...Abstract (Basic): An enclosure is provided with a **doorway** (6) through which the **animal** may enter and leave while the shutter (7) is open. The side walls (4) are rinsed with **water** from a rotary sprinkler (11), while the bed (3) of the enclosure is washed by...

...An electronic unit (27) is connected to an **infrared** emitter (25) and **detector** (26) which face each other across a diagonal of the enclosure. The cleansing sequence is...

...after the shutter has been opened and closed for a second time to enable the **animal** to leave.
...Abstract (Equivalent): generally closed chamber having a floor and side walls, one of the latter having an **opening** through which the pet can pass. A **door** is displaceable on the housing between a closed **position** blocking the **opening** and an open **position** clear of same by means of a **door** drive motor. A closed- **door** switch on the housing generates an output only when the **door** is in its closed **position** . Floor and wall sprays respectively directed in the chamber at the floor and walls of the chamber are supplied with wash liquid, usually **water** , by a valve connectable to a source of presurised liquid. A drain in the floor...

...receive material washed by the sprays from the walls and floor, comminute the material, and **feed** it to the waste line...

...A **sensor** emits an output when the pet is within the chamber and a **controller** connected to the chopper, switch, **sensor** , motor, and valve closes the **door** and then opens the valve and operates the chopper when a pet has entered and...

...beam while in the chamber, and closes the valve, stops the chopper, and opens the **door** .
Title Terms: **WATER** ;
International Patent Class (Additional): **A01K-001/01** ...

... **A01K-029/00**

31/3,K/134 (Item 134 from file: 347)
DIALOG(R)File 347:JAPIO

05914245 **Image available**
COMPULSORY SWIMMING **TESTING** APPARATUS FOR LABORATORY **ANIMAL**

PUB. NO.: 10-197345 [JP 10197345 A]
PUBLISHED: July 31, 1998 (19980731)
INVENTOR(s): SUGIURA MINORU
APPLICANT(s): MUROMACHI KIKAI KK [000000] (A Japanese Company or Corporation), JP (Japan)
SEIWA YAKUHIN KK [000000] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 09-032552 [JP 9732552]
FILED: January 10, 1997 (19970110)

COMPULSORY SWIMMING **TESTING** APPARATUS FOR LABORATORY **ANIMAL**

INTL CLASS: G01J-005/48; **G01K-003/00** ; G06M-001/00
...JAPIO CLASS: **Measurement**); 29.4 (PRECISION INSTRUMENTS

ABSTRACT
... simply by a method wherein a change in a temperature distribution generated owing to the **movement** of a laboratory **animal** inside a **water** tank is **detected** by an **infrared** **sensor** and a change in an output signal is counted...

...SOLUTION: One each of laboratory **animals** (**rats** , **mice** or the like) whose momentum in the **water** is to be **measured** are put into **water** tanks 4. **Infrared** - **sensor** units 50 are held by unit bases 60 in such a way that they are situated in respective central upper parts of the **water** tanks 4. Changes in a temperature distribution generated owing to the **movement** of the laboratory **animals** inside the **water** tanks 4 are **detected** by the **infrared** - **sensor** units 50, changes in output signals generated at this time are counted by a personal **computer** 1 via an interface 3, and the momentum of the laboratory **animals** is **measured** . Fresnel multiple lenses whose visual fields **cover** the **water** tanks 4 and which condense light are arranged in the **water** tanks 4. Thereby, the akinesia of the laboratory **animals** is **measured** as a drop in their voluntary momentum, and an antidepressant **action** can be evaluated objectively.

```
Set     Items   Description
S1     720597   IR OR INFRARED
S2    2759417   MEMORY OR RECALL OR LEARN? OR MENTAL? OR COGNITIV? OR INTE-
            LLIGEN?
S3    3222296   EDUCAT? OR INSTRUCT? OR TEACH? OR DRILL? OR MOVEMENT?
S4    4885672   ACTION? OR BEHAVIOR? OR BEHAVIOUR? OR MOTION? OR PERAMBULA-
            T?
S5   12969396   MEASUR? OR TEST? OR EXPERIMENT?
S6    7903980   GAUG? OR RATE? OR RATING? OR CHARACTERIS? OR CHARACTERIZ?
S7    8483922   ASSESS? OR CALCULAT? OR OBSERV?
S8   16073491   WATCH? OR STUDY? OR ANALYZ? OR ANALYS? OR DETERMIN?
S9    2999319   DETECT? OR SENSE? OR SENSING?
S10   4968880   SENSOR? OR SENSER? OR MONITOR? OR EVALUAT?
S11   3001781   ANIMAL OR ANIMALS
S12   1661292   MICE OR RAT OR RATS
S13   1407865   LABRAT OR MAMMAL OR MAMMALS
S14        45   (NIGHT OR NOCTURNAL?)(3N)(CREATUR? OR BEAST?)
S15   9555601   S2:S14(5N)(METHOD? OR MODE? OR SYSTEM? OR PROCESS? OR PROC-
            EDUR? OR TECHNIQU?)
S16    634252   (S1 AND S15) OR (S1 AND S2:S14)
S17     17388   S16 AND S11:S14
S18      3431   S17 AND S2:S4 AND S5:S10
S19       245   S18 AND (CPU OR COMPUTER? OR MICROCOMPUTER? OR CONTROLLER?
              OR DATA()PROCESS? OR PROCESS?()UNIT? OR CENTRAL()PROCESS?)
S20       865   S18 AND (FOOD? OR FEED? OR MEAL? OR NUTRIENT? OR INGEST? OR
             APPETIT? OR DRINK? OR WATER? OR ALIMENT? OR NOURISHMENT?)
S21        76   S19 AND S20
S22        66   RD (unique items)
? show files
File   1:ERIC 1966-2004/Jul 21
         (c) format only 2004 The Dialog Corporation
File   2:INSPEC 1969-2005/Dec W3
         (c) 2005 Institution of Electrical Engineers
File   6:NTIS 1964-2005/Jan W1
         (c) 2005 NTIS, Intl Cpyrght All Rights Res
File   7:Social SciSearch(R) 1972-2005/Jan W1
         (c) 2005 Inst for Sci Info
File   8:Ei Compendex(R) 1970-2005/Jan W1
         (c) 2005 Elsevier Eng.  Info. Inc.
File  11:PsycINFO(R) 1887-2005/Jan W1
         (c) 2005 Amer. Psychological Assn.
File  34:SciSearch(R) Cited Ref Sci 1990-2005/Jan W1
         (c) 2005 Inst for Sci Info
File  35:Dissertation Abs Online 1861-2004/Dec
         (c) 2004 ProQuest Info&Learning
File  50:CAB Abstracts 1972-2005/Dec
         (c) 2005 CAB International
File  65:Inside Conferences 1993-2005/Jan W2
         (c) 2005 BLDSC all rts. reserv.
?
```

22/3,K/3 (Item 3 from file: 2)
DIALOG(R)File 2:INSPEC

5122692 INSPEC Abstract Number: A9601-8780-017, C9601-7330-077
Title: A computer -controlled maze environment for testing visual memory in the rat
Author(s): Gaffan, E.A.; Eacott, M.J.
Author Affiliation: Dept. of Psychol., Reading Univ., UK
Journal: Journal of Neuroscience Methods vol.60, no.1-2 p.23-37
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Language: English
Subfile: A C

Title: A computer -controlled maze environment for testing visual memory in the rat
Abstract: A **computer** -controlled version of a Y-maze was developed to allow automated **testing** of **rats** ' **learning** and **memory** with visual stimuli. Each of the 3 arms terminated with 2 adjacent monochromatic screens, 43...

... confined to the central part of the display). They could be stationary or have oscillatory **movement** . Subjects' location in the maze was **monitored** by **infrared** beam photodetectors; approach to correct patterns was rewarded with **food** . Pigmented **rats** of the Hooded Lister and Dark Agouti strains were **tested** . All could acquire 2-pair concurrent visual discriminations comprising 2 positive and 2 negative patterns, either Scenes or Objects; most could acquire 4-pair discriminations. Dark Agouti **rats** generally performed better than Hooded Listers. A novel training procedure using one positive and many negative patterns resulted in rapid **learning** of novel discriminations with either moving or non-moving patterns. The apparatus is an effective environment for visual **learning** by **rats** , suitable for a wide range of tasks in neuropsychology and psychopharmacology.
...Descriptors: **computerised** instrumentation
Identifiers: **computer** -controlled maze environment...

... **rat** visual **memory** **testing** ; ...

... **computer** -controlled Y-maze...

...automated **testing** ; ...

... **learning** ; ...
...oscillatory **movement** ; ...

... **infrared** beam photodetectors...

... **food** rewards...

...Hooded Lister **rats** ; ...

...Dark Agouti **rats** ;

22/3,K/6 (Item 2 from file: 7)
DIALOG(R)File 7:Social SciSearch(R)

02678384 Genuine Article#: PP755 No. References: 40
Title: PLACE NAVIGATION IN THE MORRIS WATER **MAZE UNDER MINIMUM AND REDUNDANT EXTRA-MAZE CUE CONDITIONS**
Author(s): FENTON AA; AROLFO MP; NERAD L; BURES J
Corporate Source: ACAD SCI CZECH REPUBL,INST PHYSIOL,VIDENSKA 1083/CR-14220 PRAGUE 4//CZECH REPUBLIC/; ACAD SCI CZECH REPUBL,INST PHYSIOL/CR-14220 PRAGUE 4//CZECH REPUBLIC/; NATL UNIV CORDOBA,FAC CHEM SCI,DEPT PHARMACOL/CORDOBA//ARGENTINA/
Journal: BEHAVIORAL AND NEURAL BIOLOGY, 1994, V62, N3 (NOV), P178-189
Language: ENGLISH Document Type: ARTICLE
(Abstract Available)

Title: PLACE NAVIGATION IN THE MORRIS WATER **MAZE UNDER MINIMUM AND REDUNDANT EXTRA-MAZE CUE CONDITIONS**
Abstract: Complex relational **processes** underlying place navigation **learning** were **analyzed** by minimizing the relational elements available to **rats** . The **animals** navigated in a standard **water** maze in darkness using controlled remote visual cues (back-lit shapes in opaque buckets aimed at the pool to keep the background dark) while being tracked by an **infrared** camera and **computer** . **Learning** was similar with 2 (AB) or 4 (ABCD) cues and as good as in a...
...lit room with many cues (asymptotic escape time t = 5-7 s). The ABCD-trained **rats** were not impaired by removal of any 2 cues (t = 7). For AB-trained **rats** , adding 2 new cues (ABEF): or replacing AB with EF (EF) caused small (t = 11...

...t = 20), respectively. By block 2, both groups (ABEF, EF) returned to asymptotic performance. But **testing** the ABEF **rats** on block 2 with only EF indicated that EF was **learned** (t = 12) but not as well as when only EF was present (t = 5). Thus...
...Identifiers--FREELY MOVING **RAT** ; HIPPOCAMPUS; **MEMORY**; BLOCKING; CELLS; REPRESENTATION; INFORMATION; STIMULUS; UNITS

22/3,K/28 (Item 21 from file: 11)
DIALOG(R)File 11:PsycINFO(R)

0001815383 2001-18762-006
The ethovision video tracking system **--a tool for** behavioral **phenotyping of transgenic** mice
AUTHOR: Spink, A. J.; Tegelenbosch, R. A. J.; Buma, M. O. S.; Noldus, L. P. J. J. (Email: ethovision@noldus.nl)
AUTHOR AFFILIATION: Noldus Information Technology B. V.--Wageningen--Netherlands
JOURNAL: Physiology & Behavior--http://www.elsevier.com/inca/publications/store/5/2/5/4/8/7/, Vol 73(5), 731-744, Aug, 2001
PUBLISHER: Elsevier Science--Netherlands--http://elsevier.com
Special Issue: Molecular Behavior Genetics of the Mouse

The ethovision video tracking system **--a tool for** behavioral **phenotyping of transgenic** mice

ABSTRACT: Video tracking **systems** enable **behavior** to be studied in a reliable and consistent way, and over longer time periods than if they are manually recorded. **Calculations** are performed on a series of frames to derive a set of quantitative descriptors of the **animal** 's **movement** . EthoVision is a specific example of such a system, and its functionality that is particularly relevant to transgenic **mice** studies is described. Key practical aspects of using the EthoVision system are outlined. Four case...

...The effects of disabling the Munc 18-1 gene were clearly shown using the straightforward **measure** of how long the **mice** took to a zone in an open field. (2) Differences in exploratory **behavior** between short and long attack latency **mice** strains were quantified by **measuring** the time spent in inner and outer zones of an open field. (3) **Mice** with hypomorphic CREB alleles were shown to perform less a **water** maze, but this was only clear when a range of different variables were **calculated** from their tracks. (4) **Mice** with the trkB receptor knocked out in the forebrain also performed poorly in a **water** maze, and it was immediately apparent from examining plots of the that this was due...

DESCRIPTORS: ***Anima** l Locomotion...

... **Behavioral** Genetics; **Computer** Applications...

... **Mice**
...IDENTIFIERS: **behavioral** phenotyping...

...transgenic **mice** ; ...

...automated **observation** ; ...

... **water** maze...

... **animal movements**

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22/3,K/33 (Item 26 from file: 11)
DIALOG(R)File 11:PsycINFO(R)

0001771306 2001-00621-002
Validation of a new system **for the automatic registration of** behavior **in** mice **and** rats
AUTHOR: Van de Weerd, H. A.; Bulthuis, R. J. A.; Bergman, A. F.; Schlingmann, F.; Tolboom, J.; Van Loo, P. L. P.; Remie, R.; Baumans, V.; Van Zutphen, L. F. M.
AUTHOR AFFILIATION: Utrecht U, Dept of Lab Animal Science--Utrecht--Netherlands
JOURNAL: Behavioural Processes--http://www.elsevier.com/inca/publications/store/5/0/6/0/4/6/, Vol 53(1-2), 11-20, Mar, 2001
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Validation of a new system **for the automatic registration of** behavior **in** mice **and** rats

ABSTRACT: Describes the validation **process** of Laboratory **Behaviour Observation** , Registration, and **Analysis System** (LABORAS) by comparing the results of the **behavioral analysis** from the **computerized** device (LABORAS) with the visual scorings of 3 human O's in order to **assess** the degree of concordance. A large data set of 24-hr **behavior** recordings were collected on 2 **mice** and 2 **rats** in order to establish the reliability of the system. Results indicate that LABORAS is a reliable system for the automated registration of eating, **drinking** , grooming, climbing, resting, and locomotion of **mice** during a prolonged period of time. In **rats** , locomotion and resting also met the pre-defined validation criteria. It is concluded that the **system** can reduce **observation** labor and time considerably. (PsycINFO Database Record (c) 2004 APA, all rights reserved)

DESCRIPTORS: ***Behavio** r **Analysis** ; * ...

...Measurement; *
IDENTIFIERS: validity & reliability of Laboratory **Behavior Observation** Registration **Analysis System** vs human **behavioral analysis**

CITED REFERENCES:
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22/3,K/36 (Item 29 from file: 11)
DIALOG(R)File 11:PsycINFO(R)

0001621064 1997-05976-002
Continuous recording of uneaten food **pellets and demand-** feeding **activity: A new approach to** studying feeding **rhythms in fish**
AUTHOR: Madrid, J. A.; Azzaydi, M.; Zamora, S.; Sanchez-Vazquez, F. J.
AUTHOR AFFILIATION: U Murcia, Faculty of Biology, Dept of Physiology & Pharmacology--Murcia--Spain
JOURNAL: Physiology & Behavior--
http://www.elsevier.com/inca/publications/store/5/2/5/4/8/7/, Vol 62(4), 689-695, Oct, 1997
PUBLISHER: Elsevier Science--Netherlands--http://elsevier.com

Continuous recording of uneaten food **pellets and demand-** feeding **activity: A new approach to** studying feeding **rhythms in fish**

ABSTRACT: The existence of **feeding** rhythms implies that fish would **feed** better during their preferred **feeding** phase but reject **food** at any other time. This **study tested** the performance of a device for continuously collecting and **detecting** uneaten **food** pellets. The device consists of a pellet collector placed just under the **feeder** , and a decanter with a **sensor** attached to the bottom. When a **food** pellet is not eaten, it is rapidly collected and transferred to the decanter, where it is **detected** while dropping by an **infrared sensor** . 5 groups of 15 sea bass were maintained under natural conditions and subjected to a daily **feeding** cycle consisting of 3 1-hr **meals** . "Natural" demand-**feeding** rhythms were also investigated in 5 groups of sea bass maintained under an ad lib self- **feeding** regime. When submitted to the 3- **meal feeding** cycle, Ss fed mostly during the morning and afternoon, rejecting **food** at night. Consequently, the profile of uneaten pellets peaked at night but remained very low during daytime. This diurnal preference for **feeding** is consistent with the almost strict diurnal **feeding** rhythm found in Ss under ad-lib **feeding** . These results reveal the utility of this device for estimating **food** utilization and its potential application in nutritional and chronobiological studies in fish. (PsycINFO Database Record...

DESCRIPTORS: ***Anima** l Circadian Rhythms...

... **Animal Feeding Behavior** ; *...

... **Food** Intake; **Computer** Applications...
IDENTIFIERS: device for **detecting** & collecting uneaten **food** pellets &/vs **sensor monitoring** of demand- **feeding** activity, continuous recording of **feeding** rhythms, sea bass

22/3,K/38 (Item 31 from file: 11)
DIALOG(R)File 11:PsycINFO(R)

0001260709 1994-36131-001
Absence of snapshot memory **of the target view interferes with place navigation** learning **by** rats **in the** water **maze**
AUTHOR: Arolfo, Maria Pia; Nerad, Ludek; Schenk, Francoise; Bures, Jan
AUTHOR AFFILIATION: National U of Cordoba, Faculty of Chemical Sciences, Dept of Pharmacology--Argentina
JOURNAL: Behavioral Neuroscience--http://www.apa.org/journals/bne.html, Vol 108(2), 308-316, Apr, 1994
PUBLISHER: American Psychological Assn--US--http://www.apa.org

Absence of snapshot memory **of the target view interferes with place navigation** learning **by** rats **in the** water **maze**

ABSTRACT: Contribution of visual and nonvisual mechanisms to spatial **behavior** of **rats** in the Morris **water** maze was studied with a **computerized infrared** tracking system, which switched off the room lights when the S entered the inner circular area of the pool with an escape platform. 10 naive male **rats** trained under light-dark (LD) conditions found the escape platform more slowly than 10 male **rats** trained in permanent light (LT). After group members were swapped, the LT-pretrained **rats** found under LD conditions the same target faster and eventually approached latencies attained during LT navigation. Performance of LD-trained **rats** deteriorated in permanent darkness (PD) but improved with continued PD training. Thus LD navigation improves gradually by **procedural learning** (extrapolation of the start-target azimuth into the zero-visibility zone) but remains impaired by lack of immediate visual **feedback** rather than by absence of the snapshot **memory** of the target view. (PsycINFO Database Record (c) 2004 APA, all rights reserved)

...DESCRIPTORS: Maze **Learning** ; *...

...Spatial **Learning** ; **Rats**
IDENTIFIERS: training under light &/vs dark conditions, **water** maze performance in darkness, **rats** , implications for role of vision in navigation **learning**

CITED REFERENCES:
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22/3,K/43 (Item 4 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

07150370 Genuine Article#: 127FV No. References: 0
Title: Use of computer **supported** evaluation **in applied** animal **ethology by** OBSERVER **video tape** analysis system
Author(s): Hoy S (REPRINT)
Corporate Source: UNIV GIESSEN,INST TIERZUCHT & HAUSTIERGENET, BISMARCKSTR 16/D-35390 GIESSEN//GERMANY/ (REPRINT)
Journal: TIERARZTLICHE UMSCHAU, 1998, V53, N10 (OCT 1), P606-&
ISSN: 0049-3864 Publication date: 19981001
Publisher: TERRA-VERLAG GMBH, POSTFACH 10 21 44, D-78421 KONSTANZ, GERMANY
Language: German Document Type: ARTICLE (ABSTRACT AVAILABLE)

Title: Use of computer **supported** evaluation **in applied** animal **ethology by** OBSERVER **video tape** analysis system
Abstract: **Computer** supported **behavioural evaluation** with the help of **OBSERVER** /video tape **analysis system** enables an effective and reproducible statistical **analysis** of **behavioural** data recorded on video tapes. It allows the computation of **behavioural observations** in combination with **infrared** videos over a continuous 24 hour period or using a time sampling method. The structure and functions together with examples of the use of the video tape **analysis system** in pigs and rabbits are described. This **method** supports the **assessment** of management and **feeding systems** for the welfare and protection of **animals** .

22/3,K/50 (Item 11 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

02206233 Genuine Article#: KK092 No. References: 17
Title: 2-DIMENSIONAL ANALYSIS **OF VOLUNTARY LOCOMOTOR-ACTIVITY IN** RATS - **COMPACT APPARATUS AND ITS APPLICATION FROM NUTRITIONAL ASPECTS**
Author(s): IWAMI K; SUGIYAMA K; YAMAMOTO Y; IBUKI F
Corporate Source: KYOTO PREFECTURAL UNIV,DEPT AGR CHEM,FOOD & NUTR SCI LAB,SAKYO KU/KYOTO 606//JAPAN/
Journal: BIOSCIENCE BIOTECHNOLOGY AND BIOCHEMISTRY, 1993, V57, N1 (JAN), P 73-78
ISSN: 0916-8451
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

Title: 2-DIMENSIONAL ANALYSIS **OF VOLUNTARY LOCOMOTOR-ACTIVITY IN** RATS - **COMPACT APPARATUS AND ITS APPLICATION FROM NUTRITIONAL ASPECTS**
Abstract: A convenient apparatus for **measuring** the locomotor activity of caged **rats** was produced from thin metallic chest, video camera, personal **computers** , fluorescent lamp, **infrared** lamp, etc. at a cost not exceeding 200,000 yen. This apparatus was large enough for a growing **rat** to move about at will, whose location and locomotion were memorized at intervals of a second with the connected personal **computer** . For this reason, the apparatus is more suitable for **monitoring** 'voluntary' or 'spontaneous' activity than a running wheel or so-called 'Animex' apparatus. The **behavior** of **rats** under nutritionally different conditions, as well as those accustomed to **meal - feeding** either with high-protein and protein-free diets or with diets containing 10% perilla or safflower oil, was successively **measured** . As a result, it was assumed that the relative locomotor activity would be affected by...

...than by the preference for a particular diet and that the time to search for **food** would not necessarily be shortened by **ingesting** perilla oil.
Research Fronts: 91-3219 001 (DOCOSAHEXAENOIC ACID; ROD OUTER SEGMENTS OF **RAT** RETINA; CONE PHOTORECEPTOR CELLS; BRAIN LIPIDS; **FEEDING** DIETARY FISH OIL)

22/3,K/61 (Item 7 from file: 50)
DIALOG(R)File 50:CAB Abstracts

0007083432 CAB Accession Number: 19950505936
A device for monitoring feeding **activity of cockroaches.**
Wu ShengMing; Dong GuiFan; Dong YanDe
Institute of Microbiology and Epidemiology, 23 (A) Qilizhuang Road, Fengtai, Beijing 100071, China.
Zhongguo Meijieshengwuxue ji Kongzhi Zazhi = Chinese Journal of Vector Biology and Control vol. 2 (3, Supplement): p.65-68
Publication Year: 1991
Language: Chinese Summary Language: English Record Type: Abstract
Document Type: Journal article

A device for monitoring feeding **activity of cockroaches.**
In order to **observe feeding** activity of cockroaches, a new device was developed. The device receives information with **infrared sensors** . The information is input into the single board **computer** . It is stored and **calculated** in the **computer** . Accumulated time and frequency of **food** -searching **behaviour** are printed regularly in a fixed format.

...DESCRIPTORS: **feeding behaviour** ; ...
... **computers** ; ...

... **monitoring** ; ...

... **feeding**
...BROADER TERMS: **animals**

22/3,K/66 (Item 12 from file: 50)
DIALOG(R)File 50:CAB Abstracts

0005497972 CAB Accession Number: 19842422347
Feeding behaviour **in confinement sheep production.**
B<o>e, K.; Gjestang, K. E.
Dep. of Bldg Technol. in Agric., Agric. Univ. of Norway, N-1432 As-NLH, Norway.
Rapport, Institutt for Bygningsteknikk, Norway
(Nr. 199): 17 pp
Publication Year: 1984
Language: English Summary Language: Norwegian Record Type: Abstract
Document Type: Miscellaneous

Feeding behaviour **in confinement sheep production.**
Feeding behaviour of a flock of 160 sheep was studied in 2 types of housing during the winter of 1981/82 and 1982/83. Eating, standing and lying patterns were recorded using **infrared** light cameras and video time-lapse recorders. Data obtained were **analysed** statistically on **computer** . **Feed** rations consisted of concentrates, hay and silage. The first type of barn was fully insulated...

... pits for manure storage; both types had slatted floors and there were 7 or 8 **animals** per pen.

...DESCRIPTORS: **feeding** ; ...

... **animal behaviour**
CABICODES: **Animal Behaviour** (LL300)

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Set     Items   Description
S1     162458   IR OR INFRARED
S2     754959   MEMORY OR RECALL OR LEARN? OR MENTAL? OR COGNITIV? OR INTE-
             LLIGEN?
S3     812581   EDUCAT? OR INSTRUCT? OR TEACH? OR DRILL? OR MOVEMENT?
S4    2164622   ACTION? OR BEHAVIOR? OR BEHAVIOUR? OR MOTION? OR PERAMBULA-
             T?
S5    7404053   MEASUR? OR TEST? OR EXPERIMENT?
S6    3207546   GAUG? OR RATE? OR RATING? OR CHARACTERIS? OR CHARACTERIZ?
S7    3019054   ASSESS? OR CALCULAT? OR OBSERV?
S8    8320897   WATCH? OR STUDY? OR ANALYZ? OR ANALYS? OR DETERMIN?
S9    1296583   DETECT? OR SENSE? OR SENSING?
S10   2199377   SENSOR? OR SENSER? OR MONITOR? OR EVALUAT?
S11   2755110   ANIMAL OR ANIMALS
S12   1351865   MICE OR RAT OR RATS
S13     66400   LABRAT OR MAMMAL OR MAMMALS
S14         8   (NIGHT OR NOCTURNAL?)(3N)(CREATUR? OR BEAST?)
S15   3752955   S2:S14(5N)(METHOD? OR MODE? OR SYSTEM? OR PROCESS? OR PROC-
             EDUR? OR TECHNIQU?)
S16    145834   (S1 AND S15) OR (S1 AND S2:S14)
S17     20358   S16 AND S11:S14
S18      3425   S17 AND S2:S4 AND S5:S10
S19       138   S18 AND (CPU OR COMPUTER? OR MICROCOMPUTER? OR CONTROLLER?
             OR DATA()PROCESS? OR PROCESS?()UNIT? OR CENTRAL()PROCESS?)
S20       444   S18 AND (FOOD? OR FEED? OR MEAL? OR NUTRIENT? OR INGEST? OR
              APPETIT? OR DRINK? OR WATER? OR ALIMENT? OR NOURISHMENT?)
S21        23   S19 AND S20
S22        23   RD (unique items)
? show files
File  73:EMBASE 1974-2005/Jan W1
         (c) 2005 Elsevier Science B.V.
File  94:JICST-EPlus 1985-2005/Dec W1
         (c)2005 Japan Science and Tech Corp(JST)
File  95:TEME-Technology & Management 1989-2004/Jun W1
         (c) 2004 FIZ TECHNIK
File  99:Wilson Appl. Sci & Tech Abs 1983-2004/Nov
         (c) 2004 The HW Wilson Co.
File 111:TGG Natl.Newspaper Index(SM) 1979-2005/Jan 10
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22/3,K/7 (Item 7 from file: 73)
DIALOG(R)File 73:EMBASE

10663288 EMBASE No: 2000146137
Assessing **spatial vision - Automated** measurement **of the contrast-sensitivity function in the hooded** rat
Keller J.; Strasburger H.; Cerutti D.T.; Sabel B.A.
B.A. Sabel, Institute Medical Psychology, Otto-von-Guericke University, Leipziger Strasse 44, D-39120 Magdeburg Germany
AUTHOR EMAIL: bernhard.sabel@medizin.uni-magdeburg.de
Journal of Neuroscience Methods (J. NEUROSCI. METHODS) (Netherlands)
15 APR 2000, 97/2 (103-110)
CODEN: JNMED ISSN: 0165-0270
PUBLISHER ITEM IDENTIFIER: S0165027000001734
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 41

Assessing **spatial vision - Automated** measurement **of the contrast-sensitivity function in the hooded** rat

...description of an organism's spatial vision; it is widely used to describe vision in **animals** and humans, to track developmental changes in vision, and to compare vision among different species. Despite the predominance of **rats** in neuroscience research, their vision is not thoroughly studied due to the complexity of psychophysical **measurement** and a generally held notion that **rat** vision is poor. We therefore designed an economical and rapid **method** to **assess** the hooded **rat** 's CSF, using a **computer monitor** to display stimuli and an **infrared** touch screen to record responses. A six-alternative forced-choice task presented trials in which...

...with five gray stimuli (S-). Nose pokes to the S+ but not the S- produced **water** reinforcers. Contrasts were **tested** at each spatial frequency with a simple adaptive **procedure** until stimulus **detection** fell below chance. Psychometric functions were obtained by maximum-likelihood fitting of a logistic function...

...obtaining the threshold as the function's point of inflection. As in previous studies with **rats** , CSFs showed an inverse-U shape with peak sensitivity at 0.12 cyc/deg and acuity just under 1 cyc/deg. The results indicate the present **computer** -controlled **behavioral testing** device is a precise and efficient instrument to **assess** spatial visual function in **rats** . Copyright (C) 2000 Elsevier Science B.V.
MEDICAL DESCRIPTORS:
technique ; accuracy; **computer analysis** ; training; reinforcement; statistical **model** ; nonhuman; male; **rat** ; **animal experiment** ; **article^pr** ; priority journal

22/3,K/9 (Item 9 from file: 73)
DIALOG(R)File 73:EMBASE

07009637 EMBASE No: 1997296282
Continuous recording of uneaten food **pellets and Demand-** Feeding **activity: A new approach to** studying feeding **rhythms in fish**
Madrid J.A.; Azzaydi M.; Zamora S.; Sanchez-Vazquez F.J.
F.J. Sanchez-Vazquez, Department Physiology/Pharmacology, Faculty of Biology, University Murcia, 30100 Murcia Spain
Physiology and Behavior (PHYSIOL. BEHAV.) (United States) 1997, 62/4 (689-695)
CODEN: PHBHA ISSN: 0031-9384
PUBLISHER ITEM IDENTIFIER: S0031938497001558
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 34

Continuous recording of uneaten food **pellets and Demand-** Feeding **activity: A new approach to** studying feeding **rhythms in fish**

The existence of **feeding** rhythms implies that fish would **feed** better during their preferred **feeding** phase but reject **food** at any other time. In the present paper, we **tested** the performance of a new device for continuously collecting and **detecting** uneaten **food** pellets. The device is basically made of two parts: a pellet collector placed just under the **feeder** and a decanter-with a **sensor** attached to the bottom. When a **food** pellet was not eaten, it was rapidly collected and transferred to the decanter, where it was **detected** while dropping by an **infrared sensor** coupled to a **microcomputer** . To validate this system, five groups of fifteen sea bass, Dicentrachus labrax L., were maintained under natural conditions and subjected to a daily **feeding** cycle (**feeding rate** = 2.5% of body weight) consisting of three **meals** of one hour duration each (0800-0900 h, 1600-1700 h and 2400-0100 h). Uneaten pellets together with demand- **feeding** activity were simultaneously recorded. In addition to these **test** tanks, 'natural' demand- **feeding** rhythms were also investigated in five groups of sea bass maintained under an ad lib self- **feeding** regime. In the **test** tanks, when submitted to the three **meal feeding** cycle, sea bass showed clear time preferences for **feeding** , since they fed mostly during the morning and afternoon, rejecting **food** at night. Consequently, the profile of uneaten pellets peaked at night but remained very low during daytime. This diurnal preference for **feeding** is consistent with the almost strict diurnal **feeding** rhythm found in the sea bass groups under ad lib self- **feeding** . These results revealed the usefulness of this device in estimating **food** utilization and its potential application in nutritional and chronobiological studies in fish.
MEDICAL DESCRIPTORS:
*chronobiology; *fish; * **food** intake
animal experiment ; article; controlled **study** ; **feeding** ; **feeding behavior** ; **nonhuman** ; priority journal; **technique**

22/3,K/13 (Item 13 from file: 73)
DIALOG(R)File 73:EMBASE

05947903 EMBASE No: 1994360597

Place navigation in the morris water maze under minimum and redundant extra-maze cue conditions

Fenton A.A.; Arolfo M.P.; Nerad L.; Bures J.
Institute of Physiology, Academy of Sciences, Videnska 1083,14220 Prague 4 Czech Republic

Behavioral and Neural Biology (BEHAV. NEURAL BIOL.) (United States) 1994, 62/3 (178-189)
CODEN: BNBID ISSN: 0163-1047
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Place navigation in the morris water maze under minimum and redundant extra-maze cue conditions

Complex relational **processes** underlying place navigation **learning** were **analyzed** by minimizing the relational elements available to **rats** . The **animals** navigated in a standard **water** maze in darkness using controlled remote visual cues (back-lit shapes in opaque buckets aimed at the pool to keep the background dark) while being tracked by an **infrared** camera and **computer** . **Learning** was similar with 2 (AB) or 4 (ABCD) cues and as good as in a...

...lit room with many cues (asymptotic escape time t = 5-7 s). The ABCD-trained **rats** were not impaired by removal of any 2 cues (t = 7). For AB-trained **rats** , adding 2 new cues (ABEF) or replacing AB with EF (EF) caused small (t = 11...

...t = 20), respectively. By block 2, both groups (ABEF, EF) returned to asymptotic performance. But **testing** the ABEF **rats** on block 2 with only EF indicated that EF was **learned** (t = 12) but not as well as when only EF was present (t = 5). Thus...

MEDICAL DESCRIPTORS:
* **learning**
animal behavior ; **animal experiment** ; article; association; **computer system** ; darkness; male; maze **test** ; nonhuman; **rat** ; spatial discrimination; task performance; television camera

22/3,K/14 (Item 14 from file: 73)
DIALOG(R)File 73:EMBASE

05735756 EMBASE No: 1994141152
Absence of snapshot memory **of the target view interferes with place navigation** learning **by** rats **in the** water **maze**
Arolfo M.P.; Nerad L.; Schenk F.; Bures J.
Institute of Physiology, Academy of Sci. of Czech Republic, Videnska 1083,14220 Prague 4-Krc Czech Republic
Behavioral Neuroscience (BEHAV. NEUROSCI.) (United States) 1994, 108/2 (308-316)
CODEN: BENED ISSN: 0735-7044
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Absence of snapshot memory **of the target view interferes with place navigation** learning **by** rats **in the** water **maze**

Contribution of visual and nonvisual mechanisms to spatial **behavior** of **rats** in the Morris **water** maze was studied with a **computerized infrared** tracking system, which switched off the room lights when the subject entered the inner circular area of the pool with an escape platform. Naive **rats** trained under light-dark conditions (L-D) found the escape platform more slowly than **rats** trained in permanent light (L). After group members were swapped, the L-pretrained **rats** found under L-D conditions the same target faster and eventually approached latencies attained during L navigation. Performance of L-D-trained **rats** deteriorated in permanent darkness (D) but improved with continued D training. Thus L-D navigation improves gradually by **procedural learning** (extrapolation of the start-target azimuth into the zero- visibility zone) but remains impaired by lack of immediate visual **feedback** rather than by absence of the snapshot **memory** of the target view.
MEDICAL DESCRIPTORS:
* **learning** ; *light dark cycle; *maze **test** ; *spatial **memory** **animal** **experiment** ; article; auditory stimulation; cognition; controlled **study** ; escape **behavior** ; male; nonhuman; **rat** ; task performance; visual stimulation

22/3,K/18 **(Item 1 from file: 94)**
DIALOG(R)File 94:JICST-EPlus

05781500 JICST ACCESSION NUMBER: 04A0449285 FILE SEGMENT: PreJICST-E
Monitoring **the** behavior **and multi-dimensional** movements **of Weddell seals using an** animal **-borne video and data recorder**
DAVIS R W (1); HORNING M (1); HAGEY W (2)
(1) Texas A & M Univ. At Galveston, Tx, Usa; (2) Pisces Design, Ca, Usa
Mem Natl Inst Polar Res Spec Issue, 2004, NO.58, PAGE.148-154
JOURNAL NUMBER: Y0563AAO ISSN NO: 0386-0744
LANGUAGE: English COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Conference Proceeding
MEDIA TYPE: Printed Publication

Monitoring **the** behavior **and multi-dimensional** movements **of Weddell seals using an** animal **-borne video and data recorder**
ABSTRACT: We have developed an **animal** -borne video and data recorder to **observe** Weddell seals foraging and to reconstruct their three-dimensional **movements** . The video and data recorder consists of a low-light-sensitive video camera with near- **infrared** light-emitting diodes that is mounted on top of the seal's head to obtain close-up images of the seal's muzzle and the area in front of the **animal** . The main housing, which is mounted on the **animal** 's back, contains an 8-mm video tape recorder that can record for 6h, batteries, a **microcomputer** and transducers for pressure, **water** speed, compass bearing, and flipper stroke frequency. Sound is recorded on one audio channel of...

...swimming performance data from 31 adult Weddell seals. We have documented seals foraging in the **water** column, on the sea floor, and at the under-ice surface. Mid- **water** foraging included encounters with large Antarctic tooth-fish and smaller Antarctic silverfish. Multivariate statistical **analysis** of variables derived from the temporal and spatial **characteristics** of three-dimensional dive paths have enabled us to classify dive types and, in some...

22/3,K/19 (Item 2 from file: 94)
DIALOG(R)File 94:JICST-EPlus

03122979 JICST ACCESSION NUMBER: 97A0434791 FILE SEGMENT: JICST-E
The application of the measuring **apparatus of locomotor activity by** infrared sensor system **using multi-Fresnel lenses to forced swimming** test .
SUGIURA MINORU (1); MURAOKA SHIN'ICHIRO (1); YOSHIZAWA TOYOKICHI (1); WATABE KANAME (2); MURAKAMI OSAMU (2); YAMAGUCHI FUMIO (2)
(1) Seiwayakuhin; (2) Muromachikiki
Shinkei Seishin Yakuri(Japanese Journal of Neuropsychopharmacology), 1997, VOL.19,NO.4, PAGE.287-291, FIG.4, REF.11
JOURNAL NUMBER: Z0794BAO ISSN NO: 0388-7588 CODEN: SSYAD
UNIVERSAL DECIMAL CLASSIFICATION: 615.214
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication

The application of the measuring **apparatus of locomotor activity by** infrared sensor system **using multi-Fresnel lenses to forced swimming** test .
ABSTRACT: Recently, a new **method** was introduced for the **measurement** of locomotor activity in **experimental animals** by an **infrared sensor system** using a multi-Fresnel lenses (SUPERMEX : Muromachi-kikai, Tokyo). In this **study** , the application of this **sensor system** to a forced swimming **test** was investigated. **Mice** were forced to swim 5 minutes daily for four consecutive days. The locomotor activity of **mice** in the **water** was significantly decreased on the second day and this decrease was most remarkable on the...

...imipramine (20 mg/kg) or mianserin(5,10 mg/kg). These findings suggest that an **infrared sensor system** using a multi-Fresnel lenses may be applicable to forced swimming **test** for the simple and quantitative **evaluation** of antidepressant drugs in multi-channel compared to previous system. (author abst.)
DESCRIPTORS: mouse(**animal**); ...

... **animal test** ; ...

... **behavioral** pharmacology...

...optical **sensor** ; ...

...spontaneous **behavior** ; ...
...data **analysis** ; ...

...personal **computer** ;
...BROADER DESCRIPTORS: **animal** ; ...

... **experiment** ; ...

...pharmacological **action** ; ...

... **action** and effect...

... **sensor** ; ...

... **motion** ; ...

... **analysis** ; ...

...digital **computer** ; ...

... **computer** ;

22/3,K/23 (Item 6 from file: 94)
DIALOG(R)File 94:JICST-EPlus

01342496 JICST ACCESSION NUMBER: 91A0526303 FILE SEGMENT: JICST-E
Automatic monitoring system **for the** measurement **of body weight,** food **and** water **consumption and spontaneous activity of a mouse.**
MINEMATSU S (1); HIRUTA M (1); TAKI M (1); FUJII Y (1); ABURADA M (1)
(1) TSUMURA & CO., Ibaraki, JPN
J Toxicol Sci, 1991, VOL.16,NO.2, PAGE.61-73, FIG.10, REF.8
JOURNAL NUMBER: Z0265BAD ISSN NO: 0388-1350
UNIVERSAL DECIMAL CLASSIFICATION: 57.082
LANGUAGE: English COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication

Automatic monitoring system **for the** measurement **of body weight,** food **and** water **consumption and spontaneous activity of a mouse.**
ABSTRACT: The simultaneous recording system for body weight, **food** and **water** consumption and **behavior** (spontaneous motor activity and **drinking** and **feeding behavior**) of a mouse was developed. The body weight and **food** consumption were **measured** by force transducers. **Food** and **water** consumption and **drinking** and **feeding behavior** were **measured** by an **infrared** luminous diode and a phototransistor. Spontaneous motor activity was **measured** by photosensors. The **system** control and data acqusition were performed by using a personal **computer** . Every parameter could be **monitored** with a desired time interval. All the data collected by this system revealed apparent circadian...
DESCRIPTORS: mouse(**animal**); ...

... **feeding** (**food** intake...

... **water** intake(organism...

...spontaneous **behavior** ; ...

...simultaneous **measurement** ;
...BROADER DESCRIPTORS: **animal** ; ...

... **measurement** ; ...

... **animal behavior** ; ...

... **motion**

```
Set     Items   Description
S1     470110   IR OR INFRARED
S2    1100400   MEMORY OR RECALL OR LEARN? OR MENTAL? OR COGNITIV? OR INTE-
            LLIGEN?
S3    1518168   EDUCAT? OR INSTRUCT? OR TEACH? OR DRILL? OR MOVEMENT?
S4    2586870   ACTION? OR BEHAVIOR? OR BEHAVIOUR? OR MOTION? OR PERAMBULA-
            T?
S5    7814808   MEASUR? OR TEST? OR EXPERIMENT?
S6    4173832   GAUG? OR RATE? OR RATING? OR CHARACTERIS? OR CHARACTERIZ?
S7    4613747   ASSESS? OR CALCULAT? OR OBSERV?
S8   12797668   WATCH? OR STUDY? OR ANALYZ? OR ANALYS? OR DETERMIN?
S9    1798651   DETECT? OR SENSE? OR SENSING?
S10   3004850   SENSOR? OR SENSER? OR MONITOR? OR EVALUAT?
S11   4599971   ANIMAL OR ANIMALS
S12   3050705   MICE OR RAT OR RATS
S13     77090   LABRAT OR MAMMAL OR MAMMALS
S14         7   (NIGHT OR NOCTURNAL?)(3N)(CREATUR? OR BEAST?)
S15   5283366   S2:S14(5N)(METHOD? OR MODE? OR SYSTEM? OR PROCESS? OR PROC-
            EDUR? OR TECHNIQU?)
S16    351010   (S1 AND S15) OR (S1 AND S2:S14)
S17     83648   S16 AND S11:S14
S18     13813   S17 AND S2:S4 AND S5:S10
S19       466   S18 AND (CPU OR COMPUTER? OR MICROCOMPUTER? OR CONTROLLER?
            OR DATA()PROCESS? OR PROCESS?()UNIT? OR CENTRAL()PROCESS?)
S20      1656   S18 AND (FOOD? OR FEED? OR MEAL? OR NUTRIENT? OR INGEST? OR
             APPETIT? OR DRINK? OR WATER? OR ALIMENT? OR NOURISHMENT?)
S21        76   S19 AND S20
S22        71   RD (unique items)
? show files
File 121:Brit.Education Index 1976-2004/Q3
        (c) 2005 British Education Index
File 142:Social Sciences Abstracts 1983-2004/Nov
        (c) 2004 The HW Wilson Co
File 144:Pascal 1973-2004/Dec W1
        (c) 2004 INIST/CNRS
File 155:MEDLINE(R) 1951-2005/Dec W5
        (c) format only 2005 The Dialog Corp.
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
        (c) 1998 Inst for Sci Info
File 437:Education Abstracts 1983-2004/Nov
        (c) 2004 The HW Wilson Co
?
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22/3,K/6 (Item 6 from file: 144)
DIALOG(R)File 144:Pascal

12329534 PASCAL No.: 95-0569001
A computer **-controlled maze environment for** testing **visual** memory **in the** rat
GAFFAN E A; EACOTT M J
Univ. Reading, dep. psychology, Reading RG6 2AL, United Kingdom
Journal: Journal of neuroscience methods, 1995, 60 (1-2) 23-37
Language: English

A computer **-controlled maze environment for** testing **visual** memory **in the** rat
A **computer** -controlled version of a Y-maze was developed to allow automated **testing** of **rats** ' **learning** and **memory** with visual stimuli. Each of the 3 arms terminated with 2 adjacent monochromatic screens, 43...

... confined to the central part of the display). They could be stationary or have oscillatory **movement** . Subjects' location in the maze was **monitored** by **infrared** beam photodetectors ; approach to correct patterns was rewarded with **food** . Pigmented **rats** of the Hooded Lister and Dark Agouti strains were **tested** . All could acquire 2-pair concurrent visual discriminations comprising 2 positive and 2 negative patterns, either Scenes or Objects ; most could acquire 4-pair discriminations. Dark Agouti **rats** generally performed better than Hooded Listers. A novel training procedure using one positive and many negative patterns resulted in rapid **learning** of novel discriminations with either moving or non-moving patterns. The apparatus is an effective environment for visual **learning** by **rats** , suitable for a wide range of tasks in neuropsychology and psychopharmacology.

English Descriptors: Instrumentation; **Memory** ; Vision; **Computer** aid; **Learning** ; Discrimination task; Visual stimulus; **Animal** ; **Rat**

French Descriptors: Appareillage; Memoire; Vision; Assistance ordinateur; Apprentissage; Tache discrimination; Stimulus visuel; **Animal** ; **Rat** ; Labyrinthe

Spanish Descriptors: Instrumentacion; Memoria; Vision; Asistencia ordenador ; Aprendizaje; Tarea discriminatoria; Estimulo visual; **Animal** ; Rata

22/3,K/50 (Item 43 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09347980 PMID: 1615053
Influence of anterior subdiaphragmatic vagotomy and TPN on rat feeding behavior .
Yang Z J; Ratto C; Gleason J R; Bellantone R; Crucitti F; Meguid M M
Department of Surgery, University Hospital, SUNY Health Science Center, Syracuse 13210.
Physiology & behavior (UNITED STATES) May 1992, 51 (5) p919-26, ISSN 0031-9384 Journal Code: 0151504
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

Influence of anterior subdiaphragmatic vagotomy and TPN on rat feeding behavior .
Total parenteral nutrition (TPN) inhibits **food** intake and **feeding behavior** . Whether caloric **sensory** function of the liver contributes to this **food** intake and **feeding behavior** regulation via vagal-afferent innervation was **tested** after performing anterior hepatic vagotomy or sham operation in **rats** infused with a TPN solution providing 100% of daily energy needs, given continuously for 4 days. **Food** intake, **meal** number, size, duration, **meal** and intermeal sniffs, and eating activity were **measured** using an automated **computerized rat** eater meter (ACREM). TPN infusion resulted in a significant decrease of **food** intake and **feeding** indexes in both groups. The vagotomized **rats** showed a significantly higher **food** consumption, achieved by greater **meal** frequency, larger **meal** size, and longer **meal** duration. Thus, vagotomized **rats** consumed more than their controls by eating larger **meals** more often and of longer duration. Data suggest that anterior hepatic vagotomy interrupts hepatic caloric **sensory feedback** loop, diminishing inhibitory vagal effects on **food** intake with TPN, leading to an overall increase in **food** intake.
Descriptors: ***Appetite** --physiology--PH; * **Feeding Behavior** --physiology--PH; *Hypothalamic Area, Lateral--physiology--PH; *Liver --innervation--; **IR** ; *Neural Inhibition--physiology--PH; *Parenteral Nutrition, Total; *Vagus Nerve--physiology--PH; *Ventromedial Hypothalamic Nucleus--physiology...
; Afferent Pathways--physiology--PH; **Animals** ; **Appetitive Behavior** **--physio** logy--PH; Brain Mapping; Energy Intake--physiology--PH; Energy Metabolism--physiology--PH; Hunger--physiology--PH; **Rats** ; **Rats, Inbred F344** ; Vagotomy

INFRARED

22/3,K/57 (Item 50 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08503104 PMID: 2633788

An automated system **for** detection **and** analysis **of locomotor** behavior **in crustaceans.**

Fernandez de Miguel F; Cohen J; Zamora L; Arechiga H

Boletin de estudios medicos y biologicos (MEXICO) Jul-Dec 1989, 37 (3-4) p71-6, ISSN 0067-9666 Journal Code: 0136501
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

An automated system **for** detection **and** analysis **of locomotor** behavior **in crustaceans.**

An efficient and simple **system** is presented for the **analysis** of crustacean locomotor **behavior** . The **system** is composed by six dual-compartment actographic chambers with photocoupling circuits for **movement detection** , and a device for acquisition and **analysis** of data. Such device is made by a digital interface which **feeds** into a **microcomputer** with disc unit and printer. Information is **processed** in real time during the **experiment** , with a simultaneous printout and storage in a floppy disc.

; **Animals** ; **Infrared Rays** ; **Microcomputers** ; Photometry --instrumentation--IS; Transistors

22/3,K/63 (Item 56 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06815961 PMID: 3998660
An infrared system **for the** detection **of a pigeon's pecks at alphanumeric characters on a TV screen: the dependency of letter** detection **on the predictability of one letter by another.**
Clauson H D; Izatt E J; Shimp C P
Journal of the experimental analysis of behavior (UNITED STATES) Mar 1985, 43 (2) p257-64, ISSN 0022-5002 Journal Code: 0203727
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

An infrared system **for the** detection **of a pigeon's pecks at alphanumeric characters on a TV screen: the dependency of letter** detection **on the predictability of one letter by another.**
Three pigeons pecked at letters of the alphabet and at the symbol "?" displayed on a **computer** -driven cathode ray screen. A 4 by 4 matrix of **infrared** emitting and **detecting** diodes and associated circuitry identified the location of a pigeon's responses to the screen. Responses at the target letter T were probabilistically reinforced with **food** whenever T appeared in a string of three letters in the middle of the screen...
; **Animals** ; Cognition; Conditioning, Operant; Discrimination **Learning** ; Pigeons; Probability

```
Set     Items   Description
S1       4306   AU=(KUROKAWA M? OR KUROKAWA, M?)
S2          0   KUROKAWA(2N)MAMORU
S3   22109323   ANIMAL OR ANIMALS
S4    9458249   RAT OR RATS OR MOUSE OR MICE
S5   11263700   LABRAT? OR MAMMAL OR MAMMALS
S6         90   (NOCTURN? OR NIGHT?)(3N)(CREATUR? OR BEAST?)
S7    1436083   IR OR INFRARED?
S8         34   IC=(G06F? OR G01N? OR G01K? OR G09B? OR A01K? OR G01V?)
S9       1916   S1:S2 AND S3:S8
S10        31   S9 AND S7
S11        29   RD (unique items)
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File   1:ERIC 1966-2004/Jul 21
         (c) format only 2004 The Dialog Corporation
File   2:INSPEC 1969-2005/Dec W3
         (c) 2005 Institution of Electrical Engineers
File   5:Biosis Previews(R) 1969-2005/Dec W4
         (c) 2005 BIOSIS
File   6:NTIS 1964-2005/Jan W1
         (c) 2005 NTIS, Intl Cpyrght All Rights Res
File   7:Social SciSearch(R) 1972-2005/Jan W1
         (c) 2005 Inst for Sci Info
File   8:Ei Compendex(R) 1970-2005/Jan W1
         (c) 2005 Elsevier Eng.  Info. Inc.
File  11:PsycINFO(R) 1887-2005/Jan W1
         (c) 2005 Amer. Psychological Assn.
File  34:SciSearch(R) Cited Ref Sci 1990-2005/Jan W1
         (c) 2005 Inst for Sci Info
File  35:Dissertation Abs Online 1861-2004/Dec
         (c) 2004 ProQuest Info&Learning
File  48:SPORTDiscus 1962-2004/Feb
         (c) 2004 Sport Information Resource Centre
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         (c) 2005 CAB International
File  65:Inside Conferences 1993-2005/Jan W2
         (c) 2005 BLDSC all rts. reserv.
File  71:ELSEVIER BIOBASE 1994-2005/Jan W1
         (c) 2005  Elsevier Science B.V.
File  73:EMBASE 1974-2005/Jan W1
         (c) 2005 Elsevier Science B.V.
File  94:JICST-EPlus 1985-2005/Dec W1
         (c)2005 Japan Science and Tech Corp(JST)
File  95:TEME-Technology & Management 1989-2004/Jun W1
         (c) 2004 FIZ TECHNIK
File  99:Wilson Appl. Sci & Tech Abs 1983-2004/Nov
         (c) 2004 The HW Wilson Co.
File 111:TGG Natl.Newspaper Index(SM) 1979-2005/Jan 07
         (c) 2005 The Gale Group
File 121:Brit.Education Index 1976-2004/Q3
         (c) 2005 British Education Index
File 142:Social Sciences Abstracts 1983-2004/Nov
         (c) 2004 The HW Wilson Co
File 144:Pascal 1973-2004/Dec W1
         (c) 2004 INIST/CNRS
File 155:MEDLINE(R) 1951-2005/Dec W4
         (c) format only 2005 The Dialog Corp.
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
File 437:Education Abstracts 1983-2004/Nov
         (c) 2004 The HW Wilson Co
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File 473:FINANCIAL TIMES ABSTRACTS 1998-2001/APR 02
(c) 2001 THE NEW YORK TIMES
File 474:New York Times Abs 1969-2005/Jan 10
(c) 2005 The New York Times
File 475:Wall Street Journal Abs 1973-2005/Jan 10
(c) 2005 The New York Times
File 481:DELPHES Eur Bus 95-2005/Dec W3
(c) 2005 ACFCI & Chambre CommInd Paris
File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13
(c) 2002 The Gale Group
?

11/3,K/24 (Item 8 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09870373 PMID: 8221152
Food consistency modulates eating volume and speed through brain histamine in rat .
Fujise T; Yoshimatsu H; **Kurokawa M** ; Fukagawa K; Nakata M; Sakata T
Department of Pediatric Dentistry, Faculty of Dentistry, Kyushu University 61, Fukuoka, Japan.
Brain research bulletin (UNITED STATES) 1993, 32 (5) p555-9, ISSN 0361-9230 Journal Code: 7605818
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

Food consistency modulates eating volume and speed through brain histamine in rat .
Fujise T; Yoshimatsu H; **Kurokawa M** ; Fukagawa K; Nakata M; Sakata T
Changes in meal parameters of **rats** fed with different consistency of food were examined using hard and soft pellets. Meal size and eating speed of the first meal after 1800 h increased significantly in **rats** fed with soft pellets compared to those fed with hard pellets. Effects of histamine depletion...
... kg alpha-fluoromethylhistidine (FMH), a specific suicide inhibitor of the histamine synthesizing decarboxylase enzyme. When **rats** were fed with hard pellets, FMH significantly decreased eating speed and prolonged meal duration without affecting meal size. When **rats** were fed with soft pellets, FMH increased meal size and duration, but not eating speed...

... decreased and meal size and duration were increased in obese Zuckers, a hereditary histamine-depleted **animal** model, when compared to their lean littermates. These results indicate that proprioceptive sensation from the
...
; **Animals** ; Mouth--innervation-- **IR** ; Obesity--physiopathology--PP; **Rats** ; **Rats, Wistar** ; **Rats** , Zucker
? pause
?

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Set     Items   Description
S1         30   AU=(KUROKAWA M? OR KUROKAWA, M?)
S2          1   KUROKAWA(2N)MAMORU
S3    1602733   ANIMAL OR ANIMALS
S4     833020   RAT OR RATS OR MOUSE OR MICE
S5     107889   LABRAT? OR MAMMAL OR MAMMALS
S6       3617   (NOCTURN? OR NIGHT?)(3N)(CREATUR? OR BEAST?)
S7     641262   IR OR INFRARED?
S8          0   IC=(G06F? OR G01N? OR G01K? OR G09B? OR A01K? OR G01V?)
S9         13   S1:S2 AND S3:S8
S10         0   S9 AND S7
S11        13   S9:S10
S12        11   RD (unique items)
? show files
File   9:Business & Industry(R) Jul/1994-2005/Jan 10
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File  15:ABI/Inform(R) 1971-2005/Jan 11
         (c) 2005 ProQuest Info&Learning
File  16:Gale Group PROMT(R) 1990-2005/Jan 11
         (c) 2005 The Gale Group
File  20:Dialog Global Reporter 1997-2005/Jan 11
         (c) 2005 The Dialog Corp.
File  47:Gale Group Magazine DB(TM) 1959-2005/Jan 11
         (c) 2005 The Gale group
File  80:TGG Aerospace/Def.Mkts(R) 1982-2005/Jan 11
         (c) 2005 The Gale Group
File  88:Gale Group Business A.R.T.S. 1976-2005/Jan 07
         (c) 2005 The Gale Group
File  98:General Sci Abs/Full-Text 1984-2004/Sep
         (c) 2004 The HW Wilson Co.
File 129:PHIND(Archival) 1980-2005/Jan W1
         (c) 2005 Informa UK Ltd
File 130:PHIND(Daily & Current) 2005/Jan 11
         (c) 2005 Informa UK Ltd
File 135:NewsRx Weekly Reports 1995-2005/Jan W1
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File 141:Readers Guide 1983-2004/Sep
         (c) 2004 The HW Wilson Co
File 148:Gale Group Trade & Industry DB 1976-2005/Jan 11
         (c)2005 The Gale Group
File 149:TGG Health&Wellness DB(SM) 1976-2005/Nov W4
         (c) 2005 The Gale Group
File 160:Gale Group PROMT(R) 1972-1989
         (c) 1999 The Gale Group
File 369:New Scientist 1994-2005/Dec W4
         (c) 2005 Reed Business Information Ltd.
File 370:Science 1996-1999/Jul W3
         (c) 1999 AAAS
File 436:Humanities Abs Full Text 1984-2004/Sep
         (c) 2004 The HW Wilson Co
File 441:ESPICOM Pharm&Med DEVICE NEWS 2005/Jan W2
         (c) 2005 ESPICOM Bus.Intell.
File 444:New England Journal of Med. 1985-2005/Jan W1
         (c) 2005 Mass. Med. Soc.
File 482:Newsweek 2000-2005/Jan 05
         (c) 2005 Newsweek, Inc.
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         (c) 2005 ProQuest
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File 609:Bridge World Markets 2000-2001/Oct 01
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(c) 2001 Bridge
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(c) 2005 Business Wire.
File 613:PR Newswire 1999-2005/Jan 07
(c) 2005 PR Newswire Association Inc
File 621:Gale Group New Prod.Annou.(R) 1985-2005/Jan 11
(c) 2005 The Gale Group
File 635:Business Dateline(R) 1985-2005/Jan 11
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File 636:Gale Group Newsletter DB(TM) 1987-2005/Jan 11
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File 646:Consumer Reports 1982-2004/Dec
(c) 2004 Consumer Union
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(c) 1999 Bridge
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(c) 1999 Business Wire
File 813:PR Newswire 1987-1999/Apr 30
(c) 1999 PR Newswire Association Inc
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US 20030150395A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2003/0150395 A1

Mauderli et al. (43) Pub. Date: Aug. 14, 2003

(54) APPARATUS AND METHODS FOR TESTING PAIN SENSITIVITY

(76) Inventors: **Andre Paul Mauderli**, Dunnellon, FL (US); **Charles J. Vierck**, Gainesville, FL (US)

Correspondence Address:
SALIWANCHIK LLOYD & SALIWANCHIK
A PROFESSIONAL ASSOCIATION
2421 N.W. 41ST STREET
SUITE A-1
GAINESVILLE, FL 326066669

(21) Appl. No.: 10/313,636

(22) Filed: Dec. 5, 2002

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/004,662, filed on Dec. 5, 2001.

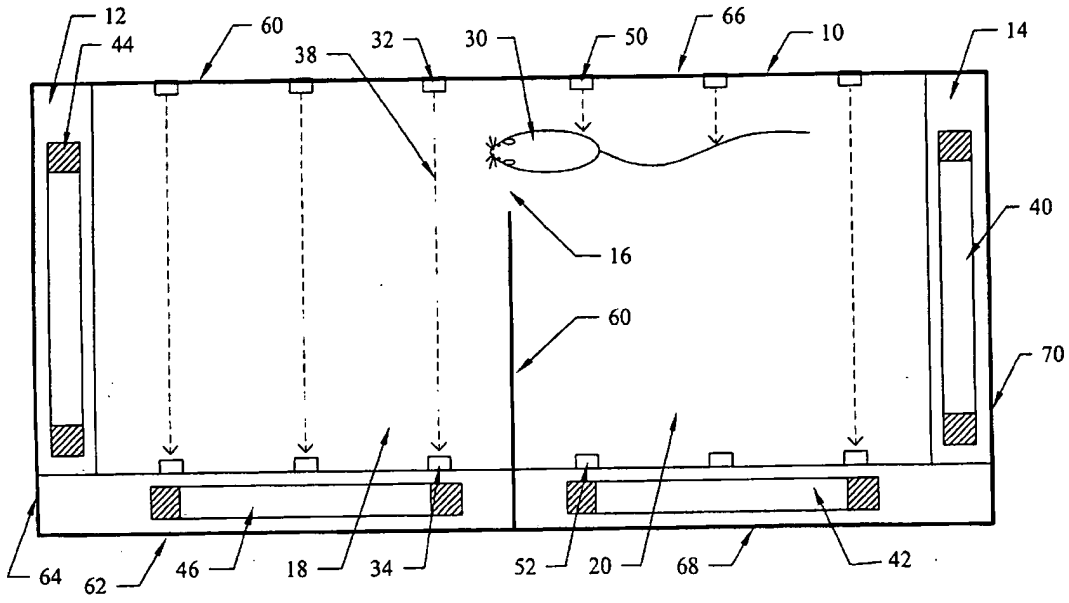
Publication Classification

(51) Int. Cl.[7] A01K 1/03

(52) U.S. Cl. 119/417

(57) ABSTRACT

The subject invention concerns an apparatus for testing pain sensitivity in an animal. The apparatus can be used to evaluate pain sensitivity in response to a disease state, drug, surgical procedure, or other intervention. The subject invention also pertains to methods for testing pain sensitivity in an animal, using the apparatus. The apparatus of the subject invention can be automated and used in conjunction with software for control of experimental conditions, response measurements, and data analysis.



US 20020177110A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2002/0177110 A1

Kurokawa (43) Pub. Date: Nov. 28, 2002

(54) METHOD AND SYSTEM FOR MEASURING MEMORY AND LEARNING CAPABILITIES

(76) Inventor: Mamoru Kurokawa, Nagasaki (JP)

Correspondence Address:
ANTONELLI TERRY STOUT AND KRAUS
SUITE 1800
1300 NORTH SEVENTEENTH STREET
ARLINGTON, VA 22209

(21) Appl. No.: 10/075,247

(22) Filed: Feb. 15, 2002

(30) Foreign Application Priority Data

May 23, 2001 (JP) 2001-154668

Publication Classification

(51) Int. Cl.[7] G09B 19/00

(52) U.S. Cl. 434/236

(57) ABSTRACT

A system for measuring memory and learning capabilities of a small animal, according to the present invention, includes:

a feed holder storing therein feed to be given to the small animal;

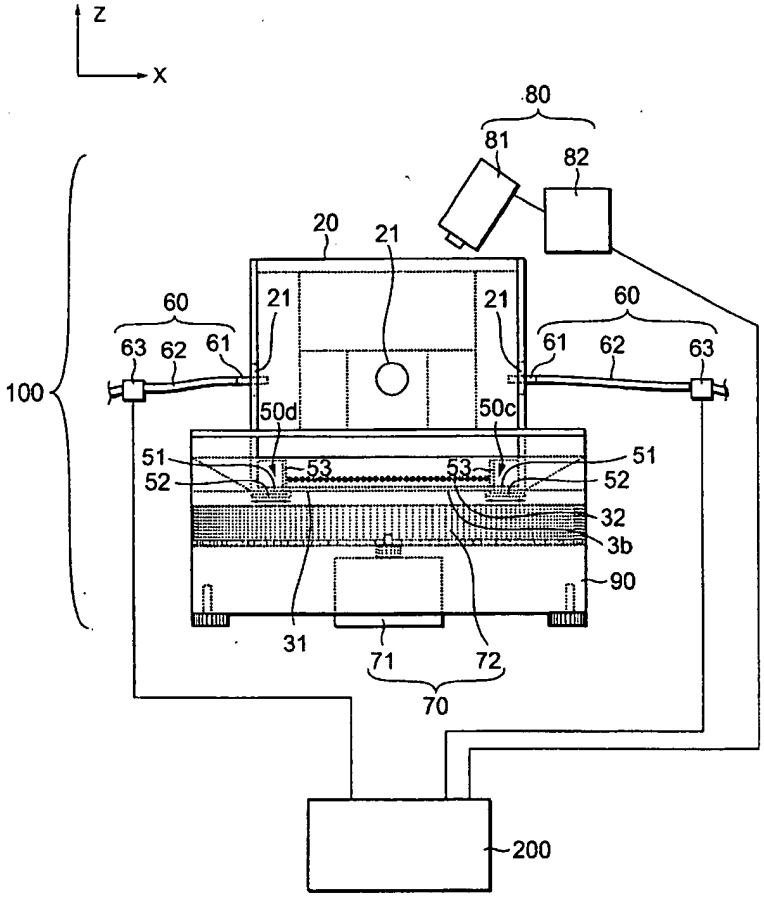
an observation field having a plurality of through holes opened into the feed holder, and holding the small animal therein;

an openable cover for opening and closing the respective through holes, the cover having breathability;

a dark chamber joined to the observation field;

an observation unit for measuring a position of the small animal in the observation field successively by using infrared rays; and

a computer for controlling timing of opening and closing each openable cover, and calculating the number of accessing times during each unit period, of the small animal to the through holes on the basis of an output from the observation unit.



US 20010010208A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2001/0010208 A1

Greeson (43) Pub. Date: Aug. 2, 2001

(54) APPARATUS FOR VARIABLY DISCHARGING INGREDIENTS ON AN ANIMAL

(76) Inventor: John S. Greeson, Dexter, NM (US)

Correspondence Address:
LAW OFFICE OF RAY B. REGAN
P.O. BOX 1442
CORRALES, NM 87048 (US)

(21) Appl. No.: 09/810,904

(22) Filed: Mar. 15, 2001

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/342,046, filed on Jun. 23, 1999, now Pat. No. 6,230,660.

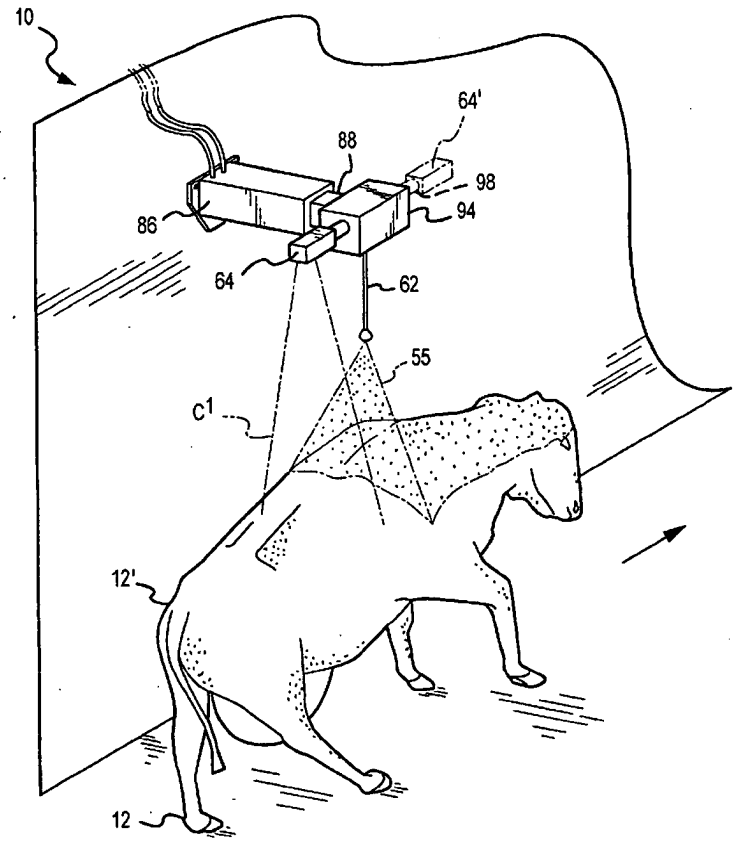
Publication Classification

(51) Int. Cl.[7] A01K 29/00

(52) U.S. Cl. 119/665

(57) ABSTRACT

An apparatus and method for variably discharging one or more ingredients on an animal is provided. Water is not included as an ingredient. The ingredients are discharged through a nozzle operatively connected to a valve. The animal is detected by a either an ultrasonic sensor, a. diffused deflective infrared sensor, or single sensing probe sensor. A variety of structural members for selectively positioning the apparatus in relation to the animal are included. A controller is provided that is programmable for varying the discharge on the animal from a continuous application to a variety of interrupted sequences. The apparatus includes a timer assembly for scheduling applications on a daily, weekly, or even monthly basis.



US006810833B2

(12) **United States Patent**
Bonner et al.

(10) **Patent No.: US 6,810,833 B2**
(45) **Date of Patent: Nov. 2, 2004**

(54) **ANIMAL HABITAT AND DISPLAY SYSTEM**

(75) Inventors: **Ronald K. Bonner**, Villa Park, CA (US); **Eric R. Knudsen**, Riverside, CA (US)

(73) Assignee: **North American Pet Products**, Corona, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/352,617**

(22) Filed: **Jan. 28, 2003**

(65) **Prior Publication Data**

US 2004/0144328 A1 Jul. 29, 2004

(51) **Int. Cl.**[7] **A01K 31/06**
(52) **U.S. Cl.** **119/455**; 119/452
(58) **Field of Search** 119/455, 452, 119/417, 418, 248, 245, 253; 230/23.83, 23.87–23.89

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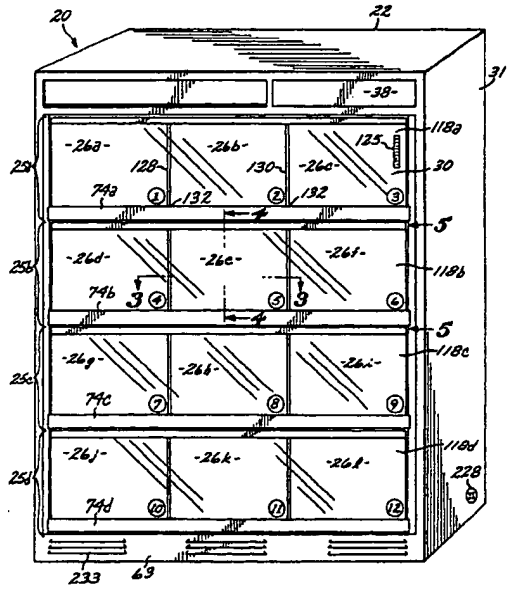
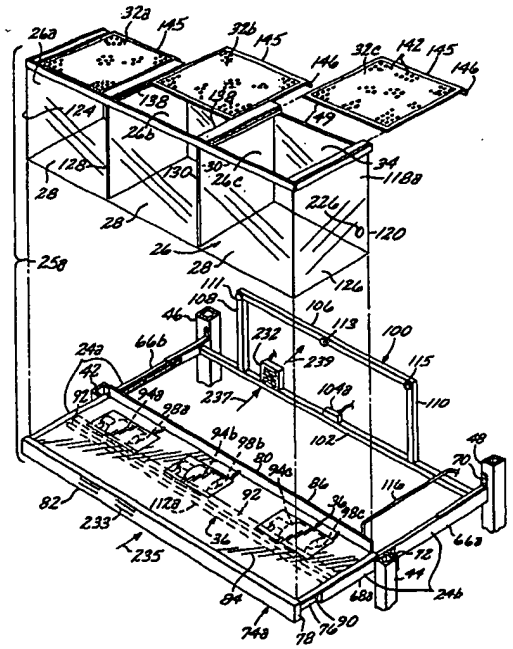
Primary Examiner—Michael Carone
Assistant Examiner—Kimberly S. Smith
(74) *Attorney, Agent, or Firm*—Fulwider Patton Lee Lee & Utecht, LLP

(57) **ABSTRACT**

An animal habitat and display system provided in a frame having at least one set of guide rails supporting a pull-out drawer having at least one compartment with a viewing window and a movable wall section for gaining access into the compartment which defines an internal habitat environment. A selectively operable regulator element in communication with the internal environment is selectively operable via an environmental control unit having a control panel for regulating the internal habitat environment.

46 Claims, 10 Drawing Sheets





US006651589B2

(12) **United States Patent**
Greeson

(10) **Patent No.: US 6,651,589 B2**
(45) **Date of Patent: Nov. 25, 2003**

(54) **APPARATUS FOR VARIABLY DISCHARGING INGREDIENTS ON AN ANIMAL**

(76) Inventor: **John S. Greeson**, 320 E. Cheyenne Rd., Dexter, NM (US) 88230

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/810,904**

(22) Filed: **Mar. 15, 2001**

(65) **Prior Publication Data**

US 2001/0010208 A1 Aug. 2, 2001

(51) **Int. Cl.**[7] **A01K 13/00**
(52) **U.S. Cl.** **119/665**; 119/656; 119/658; 119/667
(58) **Field of Search** 119/665, 656, 119/658, 666, 667, 668, 669

(56) **References Cited**

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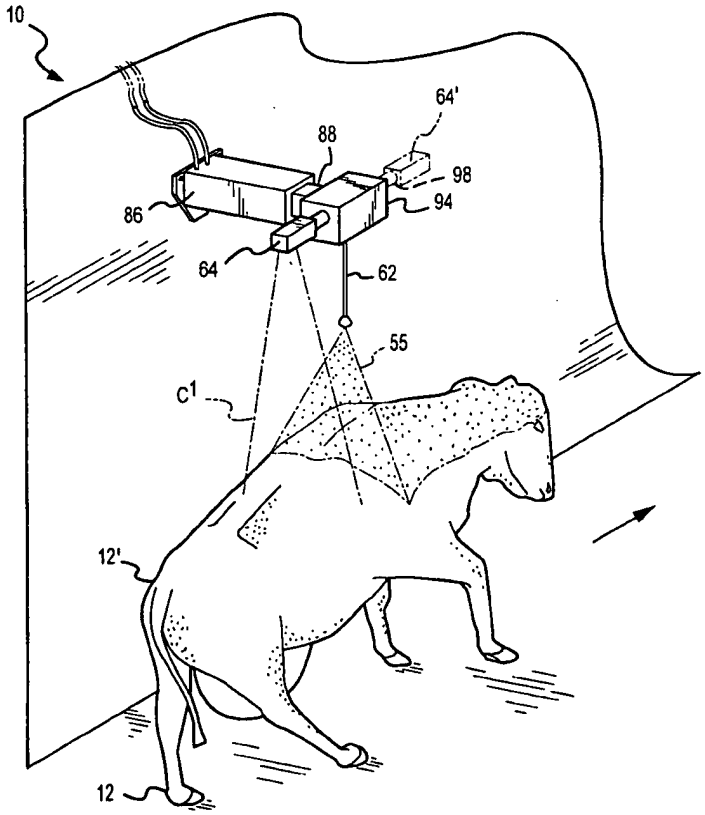
Primary Examiner—Yvonne Abbott
(74) *Attorney, Agent, or Firm*—Ray R. Regan

(57) **ABSTRACT**

An apparatus and method for variably discharging one or more ingredients other than water on an animal. A nozzle operatively connected to a valve discharges the ingredients. The animal is detected by a either an ultrasonic sensor, a diffused deflective infrared sensor, or single sensing probe sensor. A variety of structural members selectively position the apparatus in relation to the animal. A programmable controller varies the discharge of ingredients on the animal from a continuous application to a variety of interrupted sequences. A timer assembly schedules applications of ingredients on a daily, weekly, or even monthly basis.

29 Claims, 6 Drawing Sheets



US006644244B2

(12) **United States Patent**
Mauderli et al.

(10) **Patent No.: US 6,644,244 B2**
(45) **Date of Patent: Nov. 11, 2003**

(54) **APPARATUS AND METHODS FOR TESTING PAIN SENSITIVITY**

(75) Inventors: **Andre Paul Mauderli**, Dunnellon, FL (US); **Charles J. Vierck**, Gainesville, FL (US)

(73) Assignee: **University of Florida**, Gainesville, FL (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 102 days.

(21) Appl. No.: **10/004,662**

(22) Filed: **Dec. 5, 2001**

(65) **Prior Publication Data**

US 2003/0105412 A1 Jun. 5, 2003

(51) **Int. Cl.**[7] **A01K 29/00**
(52) **U.S. Cl.** **119/417**; 119/421
(58) **Field of Search** 119/417, 418, 119/421, 712, 719, 720, 721

(56) **References Cited**

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6,062,224	A *	5/2000	Kissinger et al.	128/897
6,223,690	B1 *	5/2001	Park	119/248
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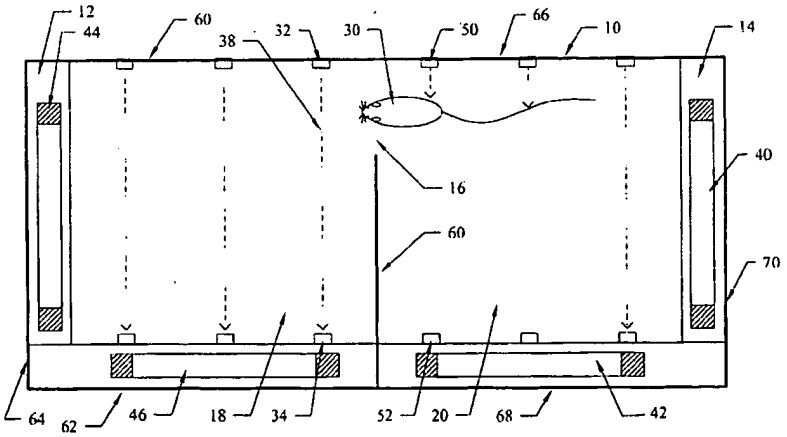
Primary Examiner—Yvonne Abbott
(74) *Attorney, Agent, or Firm*—Saliwanchik, Lloyd & Saliwanchik

(57) **ABSTRACT**

The subject invention concerns an apparatus for testing pain sensitivity in an animal. The apparatus can be used to evaluate pain sensitivity in response to a disease state, drug, surgical procedure, or other intervention. The subject invention also pertains to methods for testing pain sensitivity in an animal, using the apparatus. The apparatus of the subject invention can be automated and used in conjunction with software for control of experimental conditions, response measurements, and data analysis.

39 Claims, 2 Drawing Sheets



US006637372B2

(12) **United States Patent**
Mauderli et al.

(10) **Patent No.: US 6,637,372 B2**
(45) **Date of Patent: Oct. 28, 2003**

(54) **APPARATUS AND METHODS FOR TESTING PAIN SENSITIVITY**

(75) Inventors: **Andre Paul Mauderli**, Dunnellon, FL (US); **Charles J. Vierck**, Gainesville, FL (US)

(73) Assignee: **University of Florida**, Gainesville, FL (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/313,636**

(22) Filed: **Dec. 5, 2002**

(65) **Prior Publication Data**

US 2003/0150395 A1 Aug. 14, 2003

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/004,662, filed on Dec. 5, 2001.

(51) **Int. Cl.**[7] **A01K 29/00**
(52) **U.S. Cl.** **119/417**; 119/421
(58) **Field of Search** 119/417, 418, 119/421, 712, 719, 720, 721

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4,574,734	A *	3/1986	Mandalaywala et al.	119/421
4,968,974	A *	11/1990	Sakano	340/573.3
5,608,209	A *	3/1997	Matsuda	250/221
5,721,207	A *	2/1998	Noble et al.	514/9
5,915,332	A *	6/1999	Young et al.	119/421
6,062,224	A *	5/2000	Kissinger et al.	128/897
6,223,690	B1 *	5/2001	Park	119/248
6,273,026	B1 *	8/2001	Ferster et al.	119/421
6,345,943	B1 *	2/2002	Lawson et al.	410/29.1
2003/0024482	A1 *	2/2003	Gondhalekar et al.	119/417

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Chaplan, S.R. et al. "Quantitative assessment of tactile allodynia in the rat paw" *J Neurosci Methods* [1994] 53:55–63.

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D'Amour, F.E. and D. Smith "A method for determining loss of pain sensation" *J Pharmacol Exp Ther* [1941] 72:74–79.

Dubner, R. "Methods of assessing pain in animals" *Textbook of Pain* [1989], pp. 247–256.

Dubuisson, D and S.G. Dennis "The formalin test: a quantitative study of the analgesic effects of morphine, meperidine, and brain stem stimulation in rats and cats" *Pain* [1977] 4:161–174.

Hargreaves, K et al. "A new and sensitive method for measuring thermal nociception in cutaneous hyperalgesia" *Pain* [1988] 32:77–88.

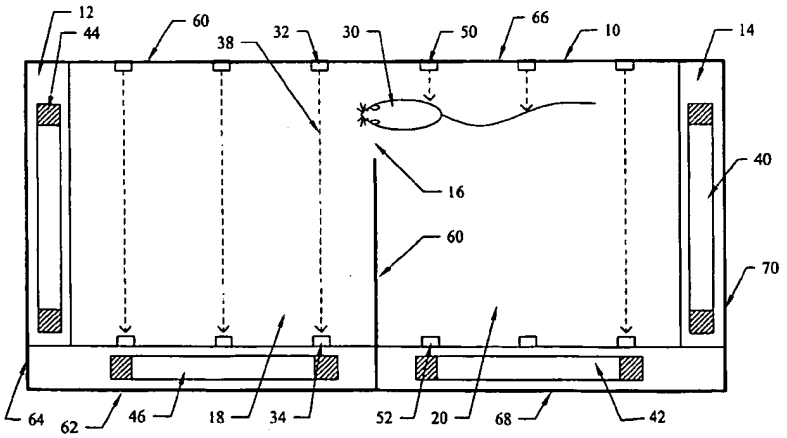
(List continued on next page.)

Primary Examiner—Yvonne Abbott
(74) *Attorney, Agent, or Firm*—Saliwanchik, Lloyd & Saliwanchik

(57) **ABSTRACT**

The subject invention concerns an apparatus for testing pain sensitivity in an animal. The apparatus can be used to evaluate pain sensitivity in response to a disease state, drug, surgical procedure, or other intervention. The subject invention also pertains to methods for testing pain sensitivity in an animal, using the apparatus. The apparatus of the subject invention can be automated and used in conjunction with software for control of experimental conditions, response measurements, and data analysis.

82 Claims, 2 Drawing Sheets



United States Patent [19]

Wilson et al.

[11] **Patent Number: 5,048,463**

[45] **Date of Patent: Sep. 17, 1991**

[54] **CONTROL SYSTEM FOR ACCESSORIES USED WITH SMALL ANIMALS AND PETS**

[75] Inventors: **C. Carl Wilson**, 2807 Illinois La., Manhattan, Kans. 66502; **Kevin D. Dutton**, Morton, Ill.

[73] Assignee: **C. Carl Wilson**, Manhattan, Kans.

[21] Appl. No.: **598,468**

[22] Filed: **Oct. 15, 1990**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 368,576, Jun. 20, 1989, abandoned.

[51] **Int. Cl.**[5] **A01K 1/00**

[52] **U.S. Cl.** **119/163**; 119/51.14

[58] **Field of Search** 119/1, 51.02, 51.14, 119/55, 163, 164

[56] **References Cited**

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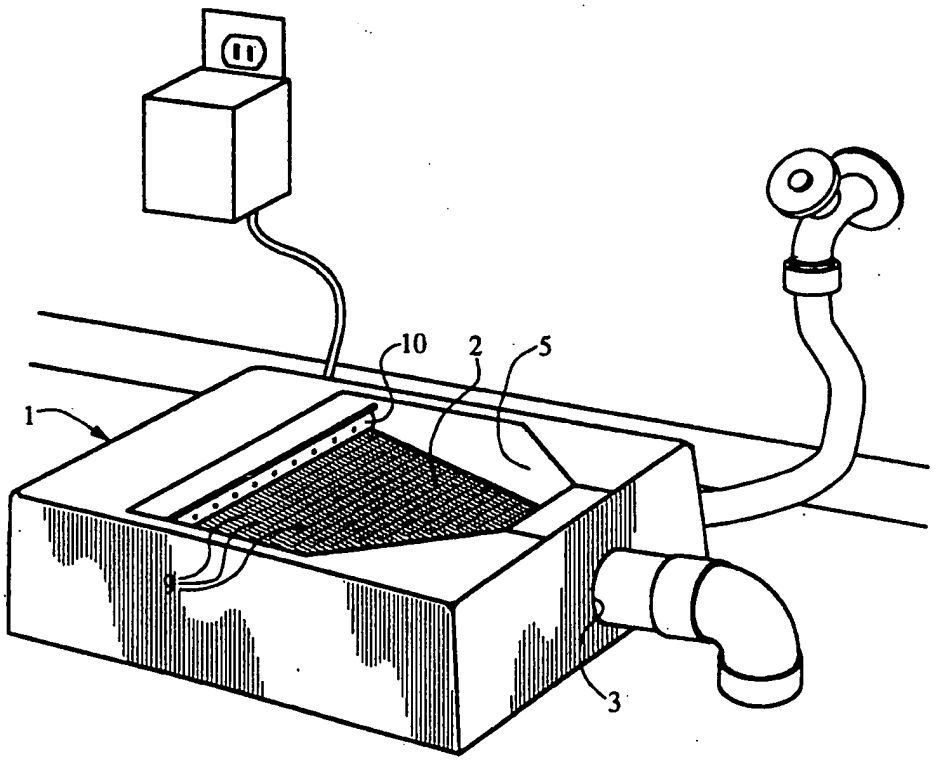
Primary Examiner—Paul J. Hirsch

Attorney, Agent, or Firm—John O. Mingle

[57] **ABSTRACT**

A control system for accessories used with small animals and pets comprises an accessory module, such as a pet flush toilet, small animals feeder, or small animals trainer, coupled with a detector systems that senses the presence of said small animal or pet at the needed location and transmits appropriate signals to a logic control segment designed for the particular accessory module employed. Such detectors do not physically restrict small animals or pets and can be passive infrared or proximity in their principles of operation. The preferred embodiment is demonstrated by controlling an accessory module comprising a pet flush toilet system with a delay-reset logic control.

11 Claims, 2 Drawing Sheets



United States Patent [19]

Sakano

[11] **Patent Number: 4,969,417**

[45] **Date of Patent: Nov. 13, 1990**

[54] **CAGE FOR EXPERIMENTAL ANIMALS**

[75] Inventor: **Kazuhito Sakano, Toyama, Japan**

[73] Assignee: **Toyo Sangyo Kabushiki Kaisha, Toyama, Japan**

[21] Appl. No.: **411,550**

[22] Filed: **Sep. 22, 1989**

[30] **Foreign Application Priority Data**

Sep. 25, 1987 [JP] Japan 62-241517

[51] **Int. Cl.**[5] **A01K 1/00**

[52] **U.S. Cl.** **119/15**; 119/174

[58] **Field of Search** 119/1, 15, 17, 19

[56] **References Cited**

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4,448,150	5/1984	Catsimpoolas	119/15

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2451775	11/1980	France	119/15
226752	9/1985	Poland	119/15

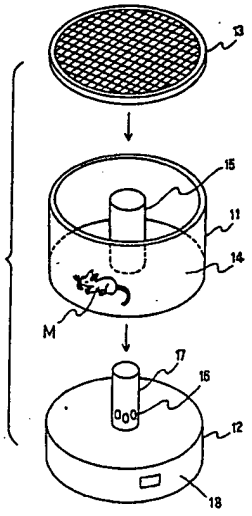
Primary Examiner—John Weiss

Attorney, Agent, or Firm—Flynn, Thiel, Boutell & Tanis

[57] **ABSTRACT**

A cage of experimental animals comprises a body, a position detection part to be assembled with the body and a cover for covering the body. The body has a cylindrical cover projected from a bottom thereof, a keeping space defined between a side wall of the body and the cylindrical cover for keeping experimental animals. The position detection part has a position detector at the circumferential surface thereof for detecting the behavioral movement of the animal.

9 Claims, 2 Drawing Sheets



United States Patent [19]

Catsimpoolas

[11] **4,448,150**

[45] **May 15, 1984**

[54] **ANIMAL HOUSING AND ACTIVITY MONITOR**

[75] Inventor: **Nicholas Catsimpoolas**, Newton Center, Mass.

[73] Assignee: **Trustees of Boston University**, Boston, Mass.

[21] Appl. No.: **418,555**

[22] Filed: **Sep. 15, 1982**

[51] **Int. Cl.**[3] **A01K 1/03**; A01K 45/00

[52] **U.S. Cl.** **119/1**; 119/15; 119/17; 119/18; 250/221; 250/225

[58] **Field of Search** 119/1, 15, 17, 18, 29, 119/16; 340/825.31, 573, 556, 686; 350/221, 227, 225; 356/375

[56] **References Cited**

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Primary Examiner—Gene Mancene
Assistant Examiner—Kris R. Schulze
Attorney, Agent, or Firm—Hamilton, Brook, Smith & Reynolds

[57] **ABSTRACT**

An animal activity housing and monitor includes several vertically displaced levels of animal cages **32** which are angularly disposed about a core **28**. The core is mounted for rotation relative to the animal cages and for fiberoptic communication with the cages. The fiberoptic filaments provide for at least one light beam to be sequentially transmitted across the cages within each level for detecting animal position. Surrounding the central core are animal activity stations **36** which may be used for animal weighing, feeding, or experimentation. The cage support structure **24** is mounted for rotational positioning so that cages may be positioned at animal activity stations **36**.

24 Claims, 9 Drawing Figures